3dtotal.com

3dcreative

Issue 088 December 2012

DOWNLOAD RESOURCES

- Free Assets



Cover image by Ali Zafati

Toni Bratincevic

3D Environment Artist

Scarecrow

Project Overview by Alfonso Annarumma

Gallery

Gallery - 10 of the best images from around the world!

ARMORED QUADRUPEDS

In this issue **Ali Zafati** takes on the challenge of creating the next creature in our ZBrush Quadrupeds series with this armored beast the end result.



Olivia - Female Character Creation

Texturing and Lighting are the main subjects covered as **Andrew Hickinbottom** brings us the second part of his female character series.



3ds Max and Maya Vehicle Modeling

Arturo Garcia (3dsmax) and **Renato Gonzalez Aguilante** (Maya) complete the modeling stage in this third chapter of our futuristic vehicles series.



The Submarine Pen - Layout of Assets

Andrew Finch is back once again with the sixth part of his Unreal Games Engine series, this time concentrating on finalizing the layout of assets.



Editorial

Welcome to the December issue of 3DCreative! The festive period is upon us and with Christmas just around the corner, we have some exciting gifts for you to unwrap and get stuck into, to help get you into the festive spirit!

The stunning image, which stands strong on our cover, is the result of Ali Zafati taking on the creative challenge of making his own quadruped. In our ZBrush Quadrupeds series our brilliant artists have been given complete creative freedom to show us how to create the organic forms of their quadrupeds. Ali covers everything from concept through to the final illustration as he demonstrates how to create this powerful creature.

Our artists continue with the modeling of the vehicles in this month's chapter of our Beginner's Guide to Modeling Vehicles series, where they have been using the 2D concept and technical drawings provided, to talk us through a step-by-step guide to turning this information into an accurate and exciting 3D model. In this installment Renato Gonzalez Aguilante and Arturo Garcia conclude the modeling process ready to begin texturing in the next chapter. Renato covers the process in Maya whilst Arturo continues in 3ds Max.

In the previous chapter of Andrew Hickinbottom's Female Character Creation series Andrew showed us the creation of his Olivia model from scratch; in this issue he goes on to show us the unwrapping and texturing of Olivia. He also demonstrates lighting the scene and how to build up the background and composition.

Andrew Finch has been guiding us through the creation of an environment built in the games engine UDK. In the last chapter Andrew covered creating custom assets to suit the environment, and started the first pass of laying out those assets in the scene. In this chapter Andrew continues to show us how to finalize the layout of the assets, ready for the next stage of polishing the environment.

In this month's interview we catch up with self-taught Croatian artist Toni Bratincevic. Toni is an amazingly talented artist, and we're sure you'll enjoy studying his captivatingly detailed images while reading about the experiences 3D has brought him.

As well as all the amazing tutorials we have a Making Of, which features the work of Alfonso Annarumma, who shows us how he created his spooky image of a scarecrow, and we also have a stunning gallery featuring work by the likes of Alessandro Baldasseroni, Jose M Lazaro, Tudor Fat and many more.

Contents

What's in this month?



Toni Bratincevic
Interview - 3D Environment Artist



The Gallery
10 of the Best 3D Artworks



Futuristic Vehicles
3ds Max & Maya - Chapter 3



Olivia - Female Character
Chapter 2: Texturing and Lighting



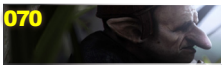
The Submarine Box
Chapter 6: Final Layout of Assets



ZBrush Quadrupeds
Chapter 3: Armored Creature



"Scarecrow"
Project Overview by Alfonso Annarumma



Sample Chapter
Digital Art Masters: Volume 7 - David Arcanuthurry



About Us
3DTotal.com Ltd Information & Contacts

Copyright © 1999-2012 3DTotal.com Ltd. All Rights reserved

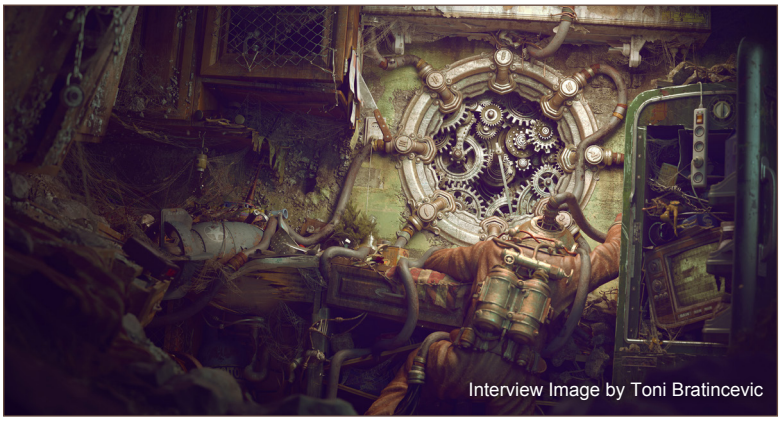
All products and websites created/published by 3DTotal.com Ltd including www.3dtotal.com, www.3dcreativemag.com, www.2dartistmag.com all physical books, ebooks, emags, video content, texture libraries and any future releases may not be reproduced in any form or by any means, without the prior written consent of the publisher.

Editor	Layout	Content	Proofing
Simon Morse	Matthew Lewis Layla Khani	Simon Morse Richard Tilbury	Jo Hargreaves
Lead Designer	Az Pishneshin	Jessica Serjent-Tipping	**Marketing**
Chris Perrins			Emma Handley

Free Stuff!

Wherever you see this symbol, click it to download resources, extras & even movies!



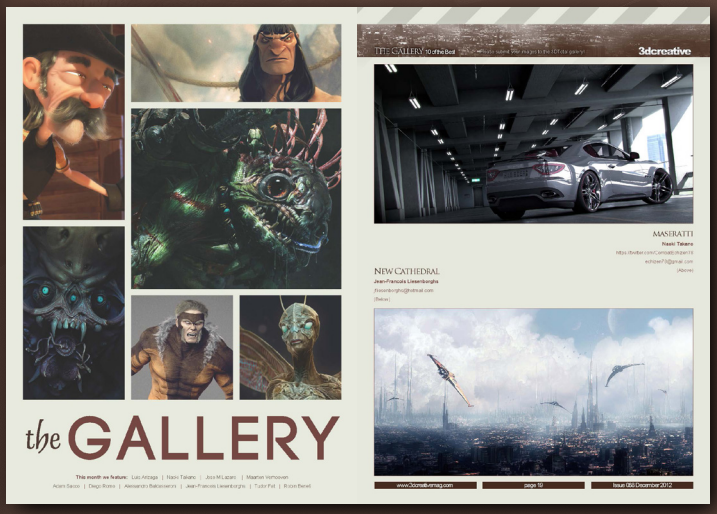


Interview Image by Toni Bratincevic



Get the most out of your Magazine!

If you're having problems viewing the double-page spreads that we feature in this magazine, follow this handy little guide on how to set up your PDF reader!







Setting up your PDF reader

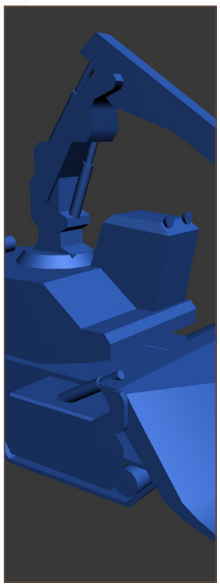
For optimum viewing of the magazine, it is recommended that you have the latest Acrobat Reader installed. You can download it for free, here: DOWNLOAD!

To view the many double-page spreads featured in 3DCreative magazine, you can set the reader to display 'two-up', which will show double-page spreads as one large landscape image:

1. Open the magazine in Reader;
2. Go to the View menu, then Page Display;
3. Select Two-up Continuous, making sure that Show Cover Page is also selected.
That's it!

Contributing Artists

Every month artists from around the world contribute to 3DCreative, and you can find out a little more about them right here! If you'd like to get involved in the 3DCreative magazine, please contact: simon@3dtotal.com



Arturo Garcia



Arturo Garcia is a freelancer living in Mexico, with 2 years experience in modelling cars. He uses 3ds Max software, and his goal is to make models become as real as possible – even confusing them with what *is* real!

http://dessga.cgsociety.org/gallery

dessga@yahoo.com.mx

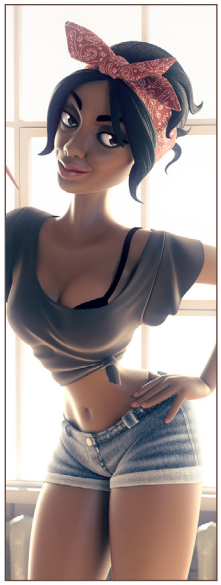


Andrew Hickinbottom

Andrew Hickinbottom is an experienced character modeler who takes great influence from 2D artistry, pinup art and cartoons. Andrew is currently working as a freelance character modeler after working full-time at various small studios for over 10 years.

www.andrewhickinbottom.com

andyh3d@gmail.com





Andrew Finch



Aged 30 and living in the great city of Birmingham, in the U.K. He has a degree in 3D Animation which inspired his passion for environment art. He now works as an environment artist at Codemasters. He says, "Working in the games industry is exciting: you never know what the next project will be and there's always something new to learn. This helps to keep you creative and grow as an artist." afinchy@googlemail.com

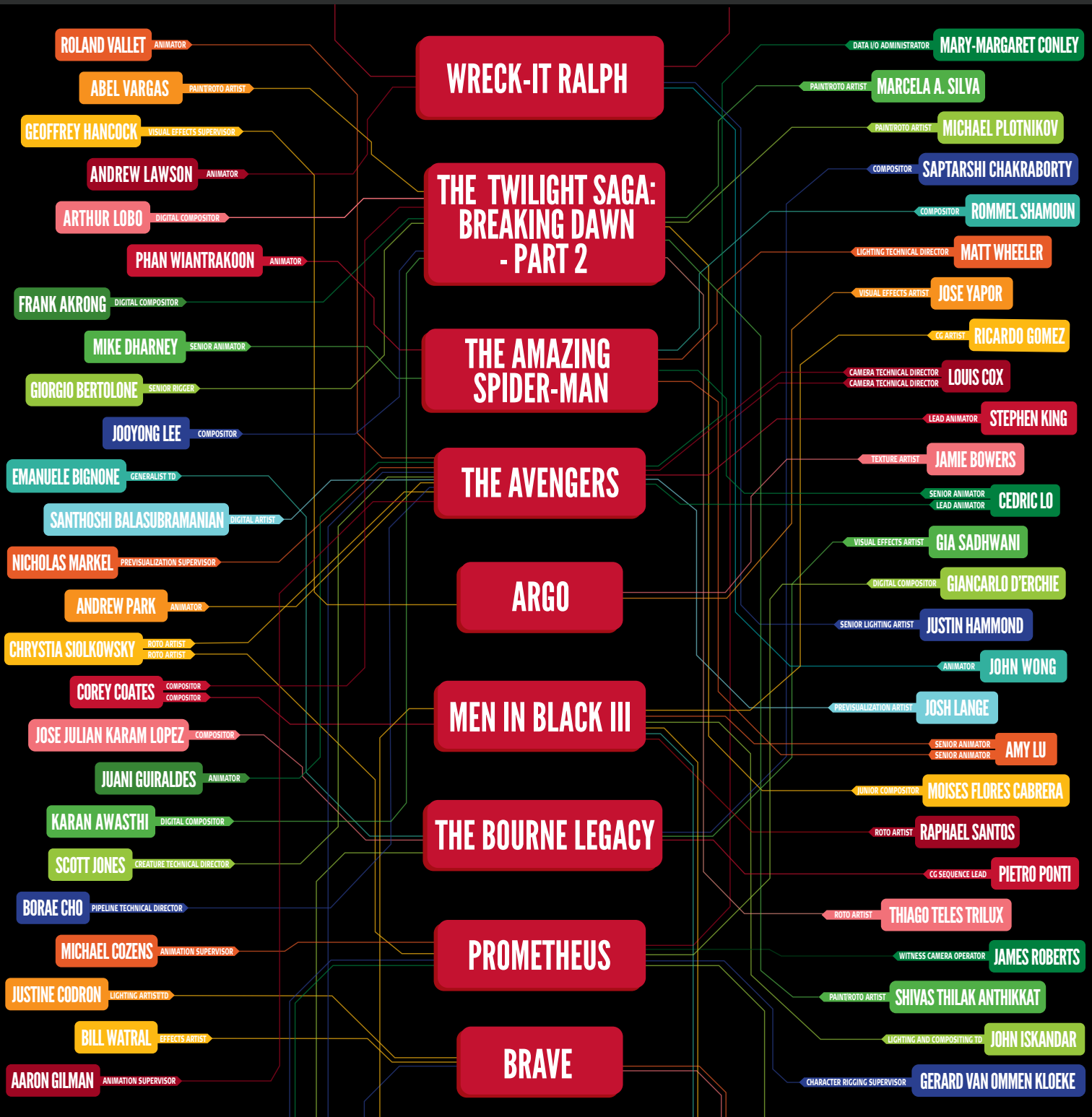


Gallery Image by Jean-Francois Liesenborghs

WATCHED A BLOCKBUSTER LATELY?

VFS 25 YEARS

THEN YOU'VE SEEN THE WORK OF VFS ANIMATION & VISUAL EFFECTS GRADS



VFS CONNECTS THE ENTERTAINMENT INDUSTRY.

VFS ANIMATION & VISUAL EFFECTS

LEARN MORE AT **VFS.COM/3DTOTAL**

CG STUDENT AWARDS
SCHOOL OF THE YEAR
2010, 2011 & 2012



"The point is to become aware of possible mistakes and try to create new techniques that avoid or solve these."

Interview with Toni Bratincevic

Toni Bratincevic is a self-taught, Croatian, 3D artist, who has a portfolio bursting with visually stimulating images that are full of details wrapped up in wonderful environments. In this month's interview he tells us a little bit about his first encounter with 3D, how he goes about creating one of his jaw-dropping images, and his proudest moments working for Blur and Blizzard.

Hi, Toni! Thanks for taking some time out for this interview. Before we get started, can you tell us a bit about the polygons that make up the 3D model of your life? When was your first contact with 3D, and your first trials and errors? Did you get a lot of support from friends and family when you were trying to make it through university and your early professional years?



My first contact with 3D graphics was during the 90s. A friend of mine had an Amiga 500 and we played a little bit with programs like Fantavision and Real3D. Some of the computer magazines at that time published images that were rendered on an Amiga in 4096 color and they were just so impressive. I remember seeing those and having some strange feeling that somehow it would be a part of my future.

Later in the 90s, I got my first PC and I installed 3ds Studio 2.0 (DOS). I spent some time learning 3ds Studio, and in the first two years I produced almost 40 illustrations. During that time there was a gallery in the Croatian computer games magazine *Hacker*, where people from around the country were sending their art pieces. Seeing some of those renderings, I decided to send some of my images, and that was the first time that one of my images was published in some form. Later that year I won an award; it was first place for best art of the year and I got some nice prizes.

In 1998, after graduating from high school, I spent almost five years studying computer science. I didn't have any art classes during college, so I spent a lot of free time learning 3D applications and creating new illustrations. After college, I landed my first job in the capital city of Croatia, Zagreb, and that's where my professional career started.

During the time you were doing 3D and studying, the internet, Google and YouTube were only just beginning to appear. Would you consider your early works pioneering and an adventure, bearing in mind that where you were living at the time hardly knew what the broadcasting, games or film industries were back then? How and where did you get useful information from, considering your limited resources?

Most of the information I was getting was actually based on the help materials I had with the 3D software I was working with. During the time when I was in college, I had a small freelance job at a local television station and I remember using the first version of Maya on a SGI workstation. That first version came with a couple of books explaining everything from modeling tools to simulation, animation and rigging, etc. I remember going over every single book and absorbing all that knowledge.

The internet during that time was not so developed, but even the small amount of





information that I was getting online was helpful. The community of 3D artists in the 90s was a lot different to that of today; they were much more excited about their discoveries and wanted to share them more, and people really helped each other to make progress.

> "Blur was a great choice for my first experience in a new world. I just loved that company; it was so much fun and the people working there were great."

When I was studying I didn't have much money to spend, so I just bought about two books about 3D in four years. It was hard to get knowledge during that time, but everybody was so passionate, so we made it somehow, even without all the learning materials available today.

That was one big adventure indeed – like going into unknown territory!

Looking back on things, how big of a decision was moving to Blur, and what did it mean for your life, not only from an artistic point of view? Was it the most daring thing you've ever done?

The decision to move to Blur was one of the most important decisions in my life. It actually meant a complete restart since I was leaving the life I'd established in Croatia. I remember we (my wife and I) were talking to our friends a lot about going abroad to work, but nobody thought we were serious. One day it just happened and everybody was shocked.

Blur was a great choice for my first experience in a new world. I just loved that company; it was so much fun and the people working there were great. It took me a couple of months to get used to the tempo we had at Blur, but after that everything went smoothly.

The experience I gained from moving to another country is something that everybody should have. Learning about a new culture, speaking a new language, getting used to how things work – it's priceless. I enjoyed every single minute of it. I really like my life here in the US, and finally feel that my skills are valued.

I grew up with your image *Bounded by Destiny*; it had everything I was looking for in a 3D piece, plus a story and the ability to explore. Can you tell us a bit about it and describe what makes it particularly special to you?

With *Bounded by Destiny* I wanted to reflect upon the life of my grandfather, who passed away a few years before I created that image. I wanted to describe the progress of life, starting with how you feel in that moment of happiness and innocence while you are young. Then, on the opposite side, I wanted to balance the image with that same person, but have him as an old person who's remembering all the steps he took during his life and trying to work out if all these steps were predestined or if he was the one that made decisions freely. Most of my images, in one way or another, are a reflection of life itself and are motivated by asking some of basic questions about it.



Most of your images are 3D adventures for me, especially when you get to read the underlining story that's behind them. How do you go about representing a thought in 3D? Where do you start, struggle the most and how does it end? Do you have any advice for the creative minds reading this?

The idea for every image I've made was not solidified before I started creating it in 3D. It's not like an idea happens and it's so clear that I can just take my 3D tools and realize it. The development of an image is an ongoing process and as visuals are developing, so is the meaning. Some of my images are made by just doing simple tests without any back story and

then, as it aesthetically becomes something, I just stick a story to it, which defines the direction for further development.

As I am working on images, I struggle a lot at a certain point to make the direction of progress clearer to me. The first 80% of the progress will usually consume 50% of my time, while the last 20% will consume the rest. Making an illustration more complex takes a lot of time and patience, but knowing what I will achieve in the end, and how people could react to it, makes me push my art further with every new piece.



The amount of detail in your work gets me wondering at times what hardware it take, or whether it's purely cutting corners. Optimizing models, pure texture expression and post-production are the biggest tricks up an artist's sleeve, but judging by your ambient occlusions I wonder how you pull it off. Has your approach to scene management changed with years of experience?

Actually, having a lot of details in an image doesn't mean that the hardware used to create it was powerful. I remember when I was working on *Slow Decay*, which even by today's standards is considered relatively complex, I had an AMD 800 MHz processor and only 1GB of RAM. The final scene was rendered with a total of 800MB of memory, but I used all kinds of optimization techniques to render it on that machine. Time spent on those optimizations was significant during those times, but with the fast computers and cheap memory of today I don't need to worry about those optimizations, and I spend less time optimizing and more producing.

Managing those big scenes can become a problem during some moments, so proper naming, using layers to separate parts of the scene and sometimes rendering in layers makes everything a lot easier to handle. The other thing that makes my life easier is that I model everything based on a camera view, which I lock very early in the process. Based on that camera it's easy to decide how much detail a model needs and what size textures I should use to achieve my goal. Every new image is another learning process, and I always try to learn from my mistakes. The point is to become aware of possible mistakes and try to create new techniques that avoid or solve these.

While creating 3D, what is the most challenging and time-consuming part and why? Feel free to give out some pointers.

Modeling is probably the most challenging part, because it consumes a lot of time and having a good eye for proportions is very important. Nowadays, with software like ZBrush, the life of a modeler tends to be much easier, but there is still a lot of manual work that I need to do to achieve my goal.

Texturing, materials and lighting are parts that I love to do, because I can use some tricks to make very rapid progress in a short amount of time. Lighting tools today are just amazing and they have progressed hugely over the years. Even in a viewport you can almost see

a final representation of light. Software like V-Ray RT goes even further and it allows me to see changes in real time, even in scenes with millions of polygons. So back to modeling, it is still a slow process with a lot of manual work, but I still love doing it!

What are the biggest changes from Blur and Blizzard? And what have been your proudest moments so far?

Blur and Blizzard are very similar, but at the same time very different companies to work for. While at Blur we were usually creating cinematics for other companies; at Blizzard we are the creators of our own destiny and we really try to perfect and polish our cinematics.

One of the proudest moments I had at Blur was working on 3D rides for the Ferrari theme park in Abu Dhabi. It was one of the projects where I was working with my friend, Olivier Vernay-Kim, on two 30 second animations and we were in charge of creating huge environments. We did everything, including modeling, texturing, lighting and compositing those environments, and on top of that we had a lot of time to finish everything. During production time we had two big stereoscopic projectors at Blur and we used to watch the progress of these 3D rides every single week, and just seeing those in real 3D was an amazing experience.

As for the Blizzard, you can probably ask me the same question in a couple of years after I've worked on a couple of cinematic projects, but so far I had some really great experiences just by working on the *World of Warcraft: Mists of Pandaria* cinematic.

Can you talk about any current projects your working on at Blizzard?

When I came to Blizzard the first project that I was assigned to was the *Mists of Pandaria* cinematic. We were just finalizing that cinematic and I did some texturing on a few assets for it. It was a really fun experience since I came during the time that things were wrapping up and I had to adapt very quickly, so I was learning everything pretty fast.

I can't say anything about the other projects I've worked on, since they are not out yet, but I am sure you will see more of my contributions to Blizzard's cinematic projects in the future.

Between work and life, how do you organize your time for personal artwork and projects?

To be able to do personal work, it's very important to work for a company that gives you a lot of space and free time, and that's what I've found at Blizzard, and that is what makes me really happy. I usually set a goal to produce something like two or three personal illustrations per year and I try to get some work done every single week, at least a couple of hours per week. Even after having a nine hour work day, and maybe one or two hours of personal work, I still have enough time to spend with my wife, read some books and play some games. Good organization and discipline is very important; I just set a goal for what I need to do and try to keep that promise to myself.

From the looks of things, you are pretty happy and looking forward to raising a family. Best of luck and keep working hard – we love to read your stories in 3D!

Thanks for the interview – it was my pleasure!



Toni Bratincevic

Web: http://interstation3d.com

Email: toni@interstation3d.com

Interviewed by: Predrag Suka

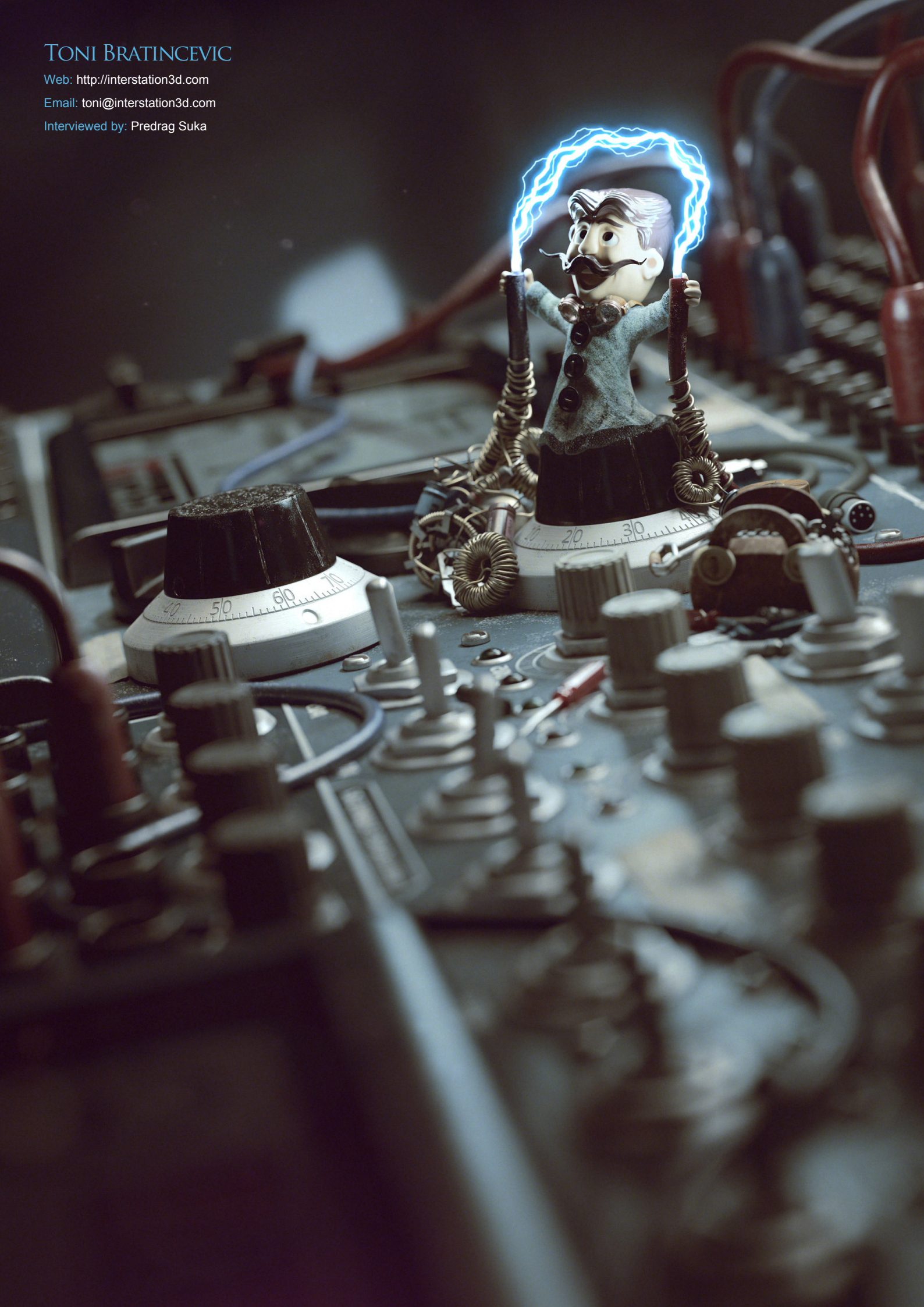
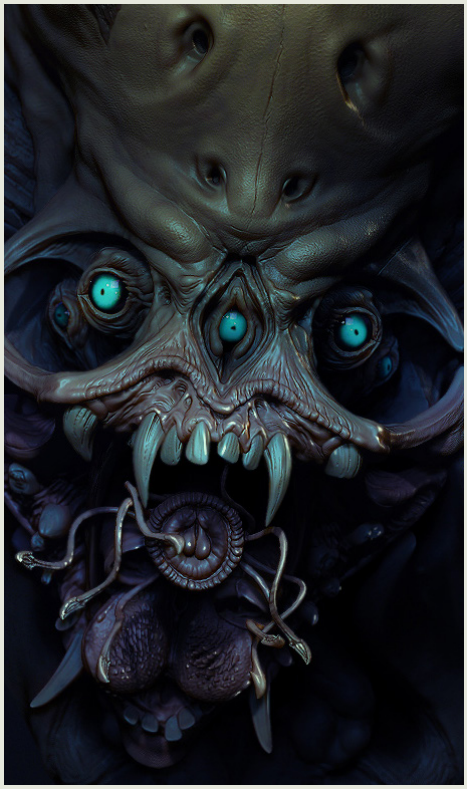



Image Courtesy of Ali Zafati
ZBRUSH
Avalable at your local reseller
Pixologic.com/resellers













the GALLERY

This month we feature: Luis Arizaga | Naoki Takano | Jose M Lazaro | Maarten Verhoeven
Adam Sacco | Diego Romo | Alessandro Baldasseroni | Jean-Francois Liesenborghs | Tudor Fat | Robin Beneš



MASERATTI

Naoki Takano
https://twitter.com/CombatEchizen78
echizen78@gmail.com
(Above)

NEW CATHEDRAL

Jean-Francois Liesenborghs
http://www.3dimensions.us
jfliesenborghs@hotmail.com
(Below)





XXX-Eye

Maarten Verhoeven

http://verhoevenmaarten.blogspot.be/

darth_mutte@yahoo.com

(Above)



Dragonfly

Tudor Fat

http://tudorfat.weebly.com/

tudorfat@yahoo.com

(Top Right)



Sabretooth – X-Men

Adam Sacco

http://www.soulty.com

add111@live.com.au

(Bottom Right)

Venom Hunter

Robin Beneš

http://www.tes3d.com

tes@tes3d.com







Conan the Cimmerian

Jose M Lazaro

http://www.josemlazaro.com

ballobello@gmail.com

Modern Argonaut

Diego Romo
http://diegoron.cgsociety.org/gallery/
diromha@gmail.com
(Right)



Victor

Alessandro Baldasseroni
http://www.eklettica.com
baldasseroni@gmail.com
(Below)



Cartoon Cowboy

Luis Arizaga

http://academy.digital-rebel.com

cursos@digital-rebel.com



Add Vue to Your Skillset



Vue image by Evan Guzman

Vue 11 now available: www.Vue11.com

3D Environment Competition 2012

3D Environment - Character Rendering - Architectural Visualization

Over $30 000 worth in prizes!

Submission ends December 16, 2012

www.e-onsoftware.com/competition

Sponsors



e-on software

beyond inspiration

Technologies for Digital Nature

Vue | Carbon Scatter | Ozone | LumenRT

©1993-2012 e-on software, inc. All rights reserved. Vue, Carbon Scatter, Ozone and LumenRT are trademarks of e-on software, inc. E-on software and the e-on software logo are trademarks or registered trademarks of e-on software, inc. All other trademarks or registered trademarks are the property of their owners and are used for identification purposes only. Information in this document is subject to change without notice. Items displayed on this document are not necessarily supplied with the package.

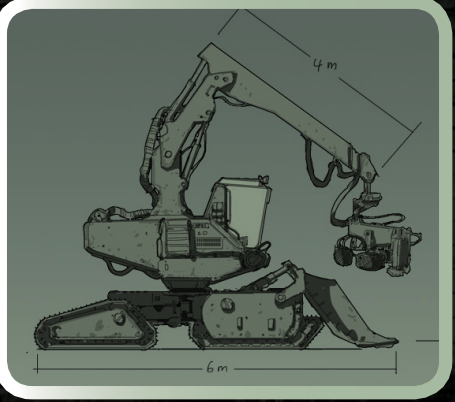

modo® image by Teodoru Badiu www.theodoru.com
03
Meet modo.
Luxology®

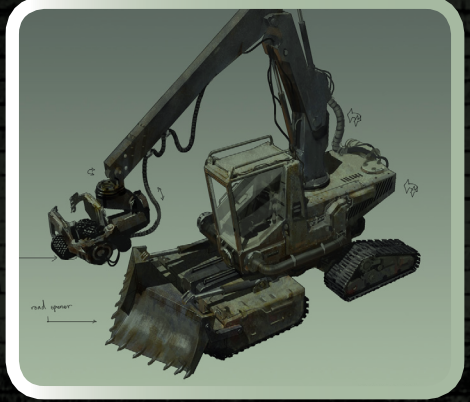
BEGINNER'S GUIDE TO MODELING
FUTURISTIC VEHICLES

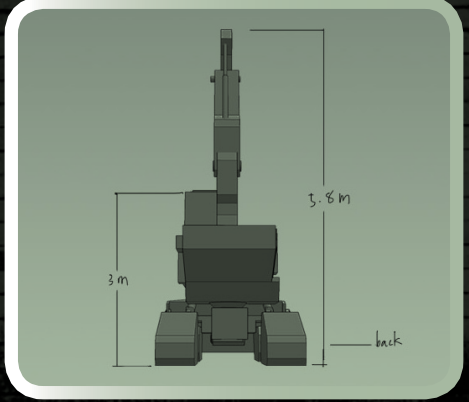


Futuristic vehicles are a common subject matter in the CG world. However, in this series we will be approaching creating futuristic vehicles in a slightly different way. Our two amazing artists have been provided with a 2D concept and technical drawing of a destructive deforestation vehicle. Over the eight-part series they will detail a step-by-step guide on how to turn this 2D information into an accurate and exciting 3D model, from the initial modeling phase through to the final rendering.

3ds max



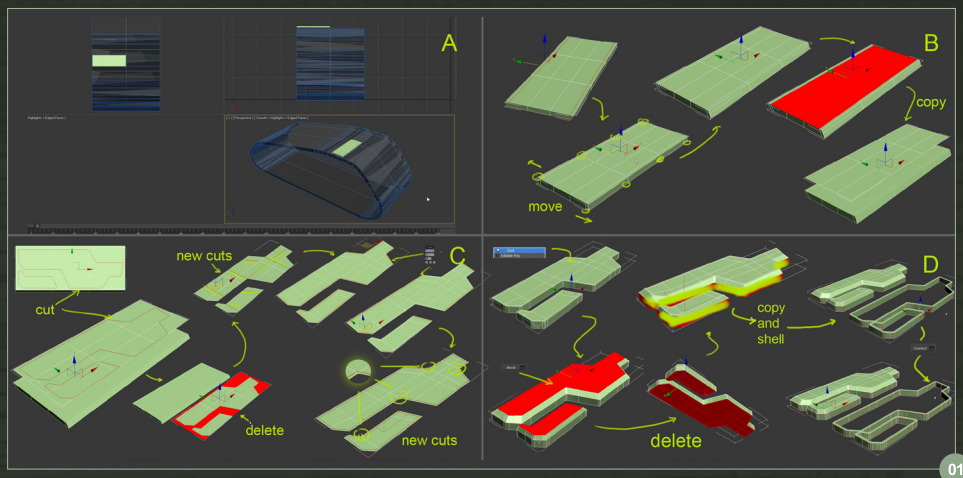




CHAPTER 03

Software used: 3ds Max

In this chapter we will continue to model our vehicle. First we will create what will be the bearings and caterpillars of the vehicle. For this we will take inspiration from some reference images (you will find some by performing an internet search) and use them to create a sketch for an exclusive piece for this model.

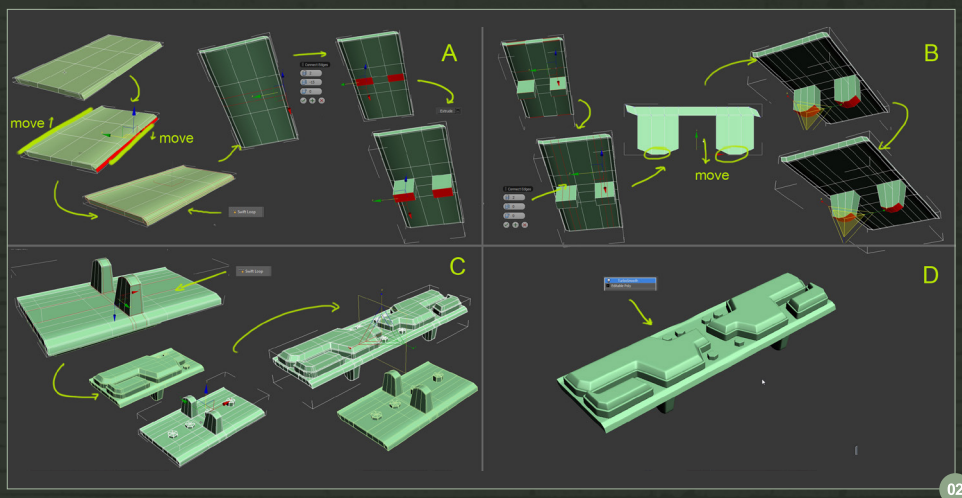


01

To create this object we will start with a 3 x 3 x 1 box (**Fig.01**).With an editable poly (A) we make cuts to both ends of the box, then select and copy the box faces (B). From the top view make a few cuts on the faces we copied earlier; once we have done this we can delete the faces that we will not use.

Now make a few more cuts to avoid problems when you subdivide the mesh. Apply Chamfer Edges and make corrections by making new cuts (C), and then we apply the Shell modifier and convert to an editable poly. Next, select the top faces and apply Bevel, then eliminate the undersides, select all the faces of the bottom edge and copy them. Then apply the Shell modifier and convert to an editable poly. Select the edges of the sides and hit Connect (D).

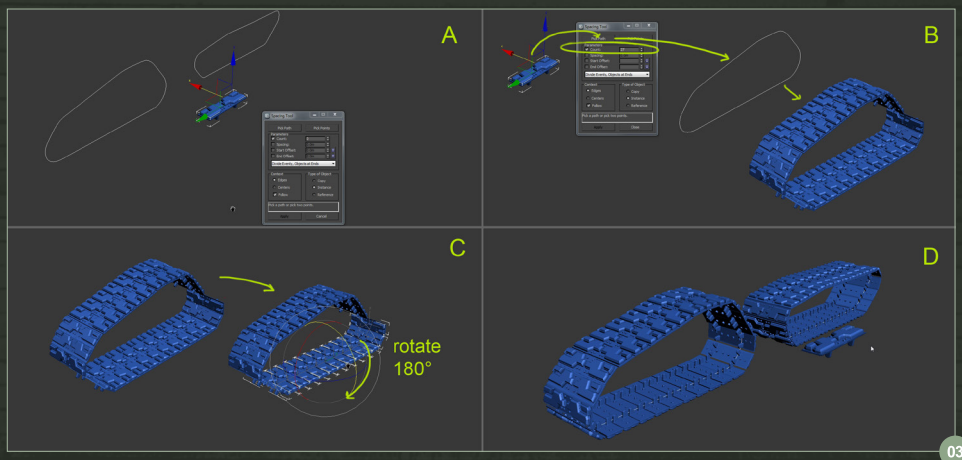
Now we move on to the other side of the piece (**Fig.02**). Move the faces that belong to the back part upwards and the front part down, using the Swift Loop tool. Then make some cuts, connect the edges of the central part with the two segments, select two of the new faces and apply Extrude (A). Select the edges and apply Connect.



02

We see some vertices that we need to give a curved shape to; select the faces of the image and extend a little (B), then make some cuts in order to soften it later. Add a few studs in the central part and to what will be the part below. Apply Connect to the elements, then apply a Symmetry modifier (C), and TurboSmooth to see the result (D).

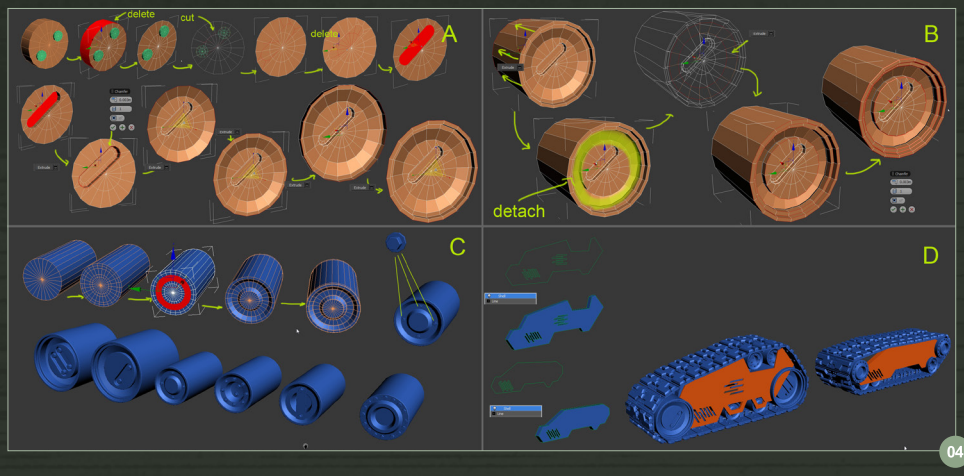
Now we'll make several copies of this piece and put together the front and rear caterpillars (**Fig.03**). For this we will use the Spacing tool, which can be found in the Menu toolbar > Align > Spacing Tool (Shift + I).



03

Next, isolate the two splines that you created earlier for a reference of the caterpillars (A), then select the piece that we will copy and in the options of the Spacing tool menu, click the Pick Path button and select one of the splines. In Parameters, activate Count and assign a number. This will be the number of times that it repeats the piece; in this case 27 (B). As the bottom parts are poorly targeted, select them and rotate 180 degrees locally (C), and put them in their final position (D).

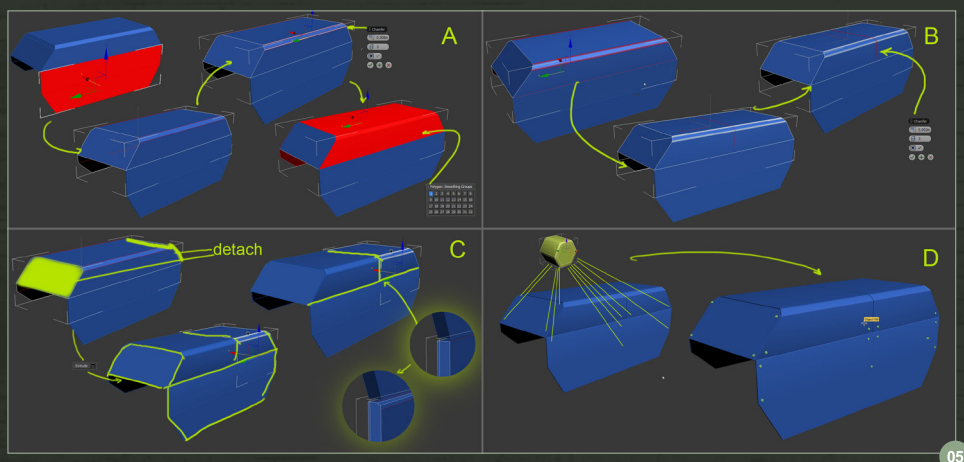
We will now continue with the bearings of the caterpillars (**Fig.04**). Create one cylinder and two smaller ones that we will use as a guide to make a few cuts. First, we eliminate the faces that we don't need and make a few cuts using the smaller cylinders as a guide. Then connect the vertices that were created, removing the edges that aren't needed. Select the sides we want to stay clean and apply Extrude, then Insert, before selecting the edges and applying Chamfer. Select the edge and apply Extrude, moving the edge to give form (A).



04

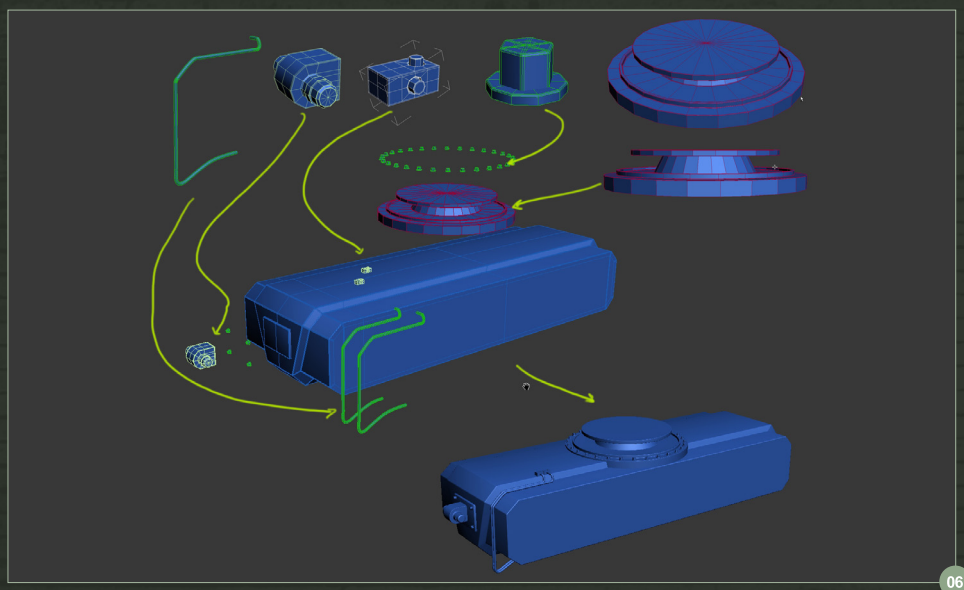
Continue with the selected edge and apply Extrude, then select some faces and apply Detach. Select the edges that are left and apply Extrude, then select the edges and apply Chamfer (B). Create another cylinder, convert it to editable poly and apply some of the techniques that we have already used in the previous step.

Next apply Inset, then move some faces and apply Chamfer. Place a few screws. We already have one of bearing, and using the same technique we can create different ones by just moving some faces (C). For the panels of the caterpillars, make a few strokes with splines and apply the Shell modifier to them; with all these pieces we can assemble the caterpillar (D).



05

Now we continue with the front caterpillars (**Fig.05**). Take the cover of the base model and make a copy; this copy we separate from the bottom. Select the four edges of the top and apply Chamfer, then select the faces of the center and apply an Antialiasing group to make that part smoother (A).

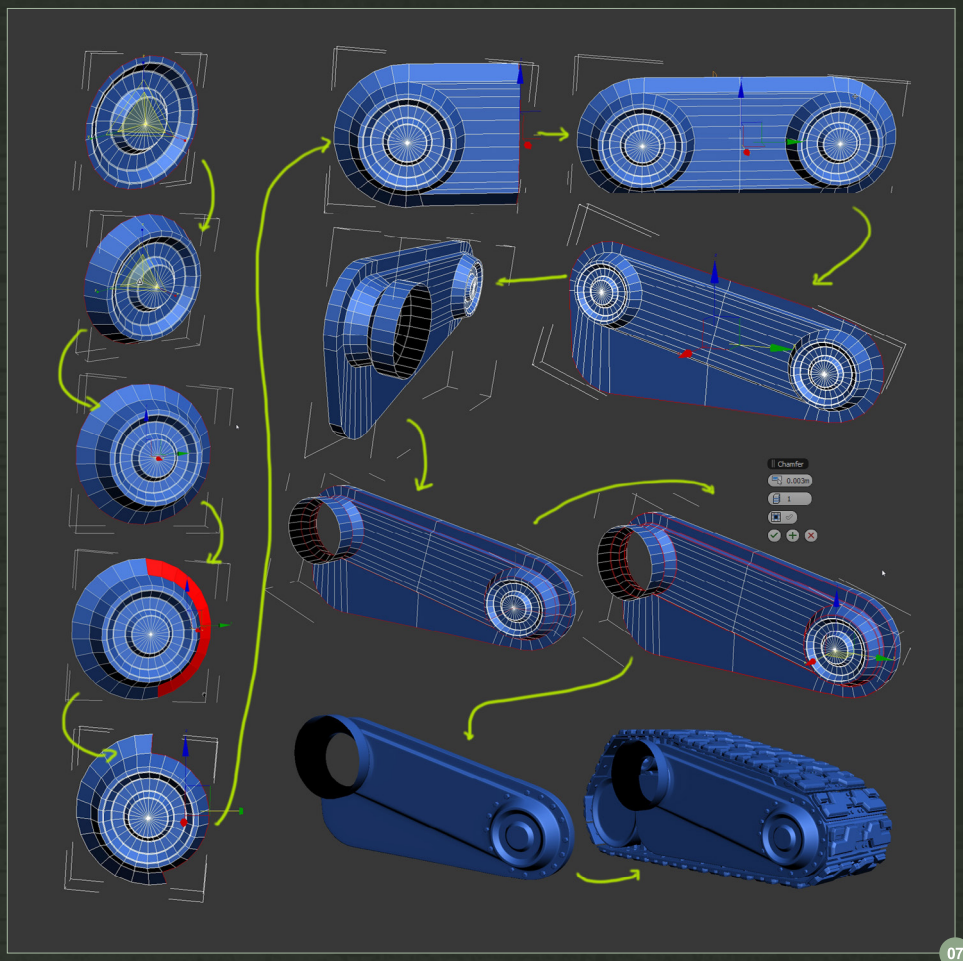

06

Take the edges of the central part and apply Connect with one segment after Chamfer, and separate it into two pieces (B). We then take the front and rear faces and separate them. Now to give volume to the panels, select the edge and apply Extrude to five parts one-by-one so you don't miss any vertices that need to be adjusted individually. Select three edges and apply Chamfer with four segments (C), and put some bolts where they are supposed to fix the panels. With that we have the Caterpillar front cover (D).

Now we;re going to move on to create part of chassis, and cover the inside of the caterpillars and bearings. First add some details to the base of the chassis; I won't go into detail on how to make each piece, since the techniques we've already covered can be used to easily create these details (**Fig.06**).

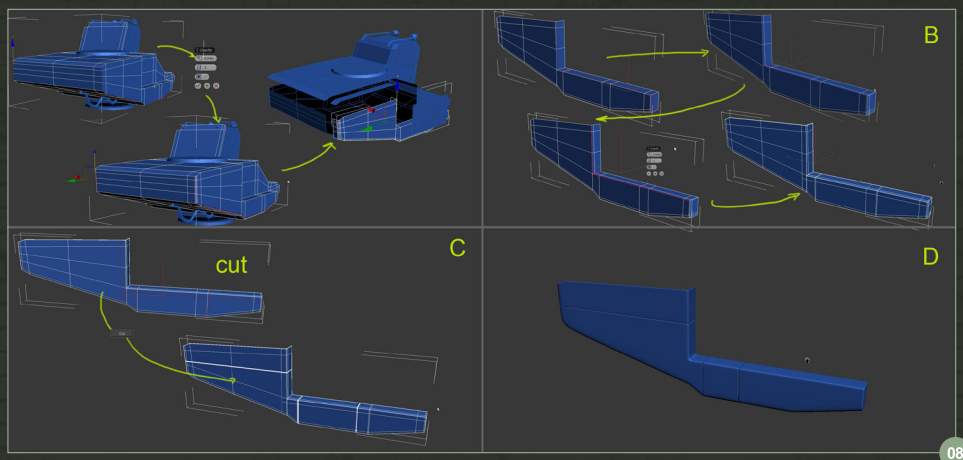
We take one of the bearings, delete the back and on the base of this apply Extrude Edge twice. Eliminate some of the faces and apply Extrude.

Then apply the Symmetry modifier and convert to an editable poly. Take the edge and adjust it to make the shape and position of the caterpillars. Remove the sides of the center and edge on the end that is accompanied by the chassis, and apply Extrude. Finally select the edges of the sides and apply Chamfer. I've also put some bolts on the base (**Fig.07**).


07

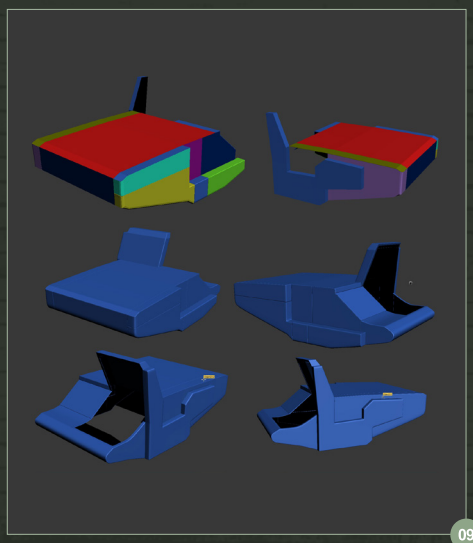
Now move on to one of the more important parts of the model: the body (**Fig.08**). First apply Chamfer to some of the edges of the sides and continue by separating parts of the model into panels (A). Select one of the panels, in this case the side, and start making some cuts. Then select some of the edges that form 90 degree angles and apply Chamfer (B). Make a few more cuts and divide the model into three parts, select the edges and apply Chamfer, then Extrude (C).

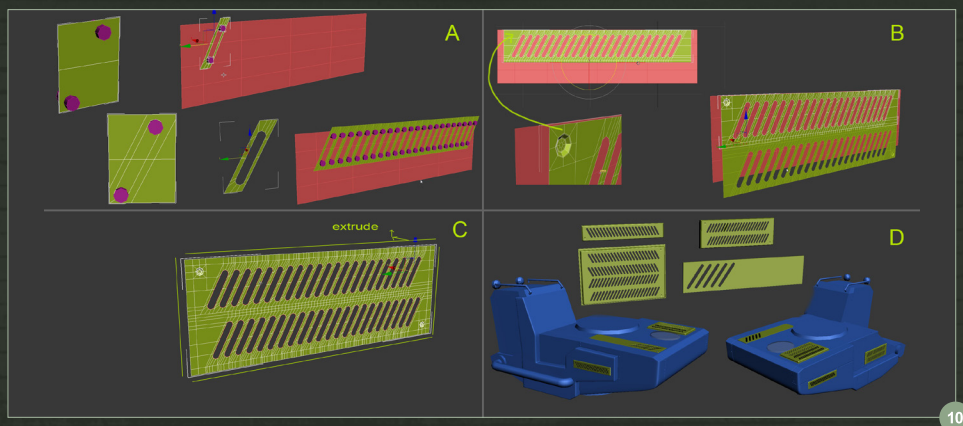
This same technique applies to much of the model so there is no need for me to explain each piece. I'm just going to look at the separate panels, which we will work on individually (**Fig.09**).



08

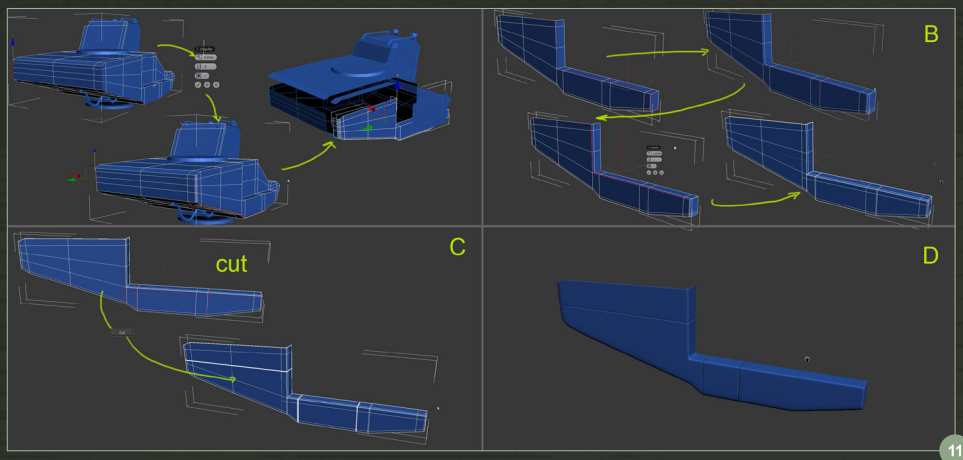
We're going to create a radiator that can be seen at the sides and on the top (**Fig.10**). Create a plane and two cylinders, which we will use as a reference to make cuts and create a pattern. Draw what will be the hole and then clone it; after, weld the vertices to the joining parts (A).


09



10

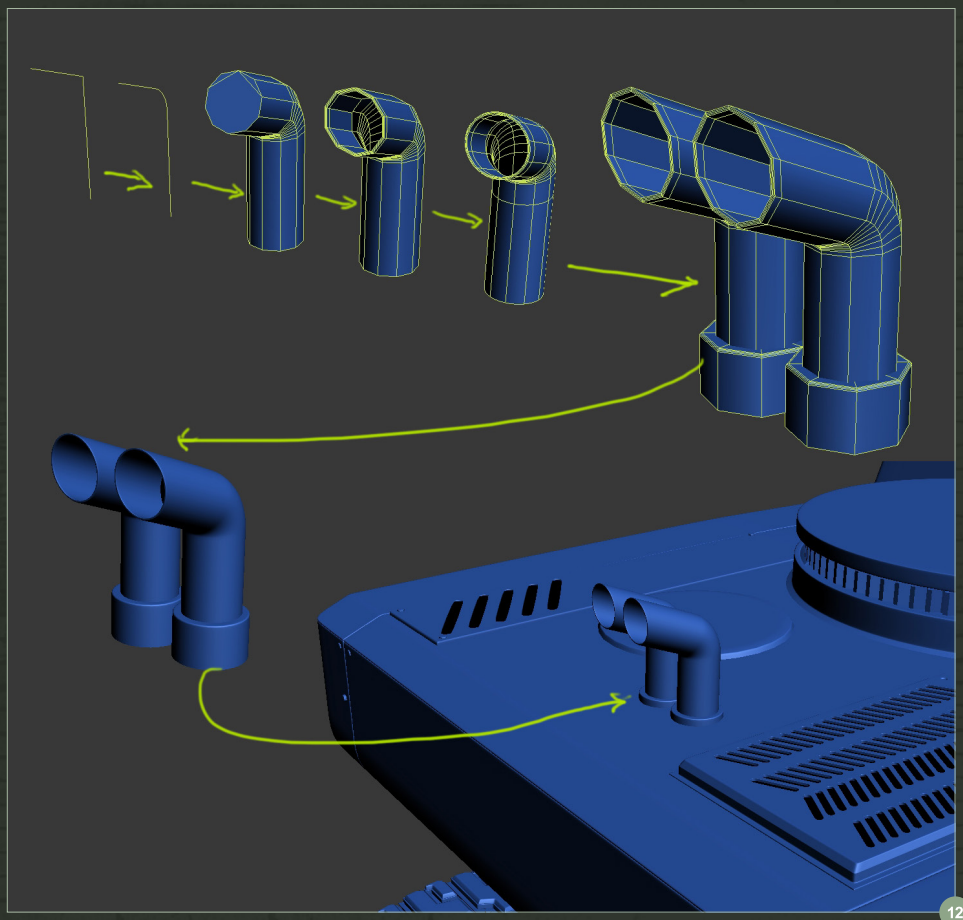
Select the edges at the bottom and Extrude. In one of the sides, draw a circle to locate where there will be screws holding it in place. Clone the entire piece and turn it 180 degrees, then remove the extra edges and weld the two pieces together (B). Next, select the edge and apply Extrude. Also select the edges of the interior holes and apply Chamfer (C). This is the process for other areas of the model (D).



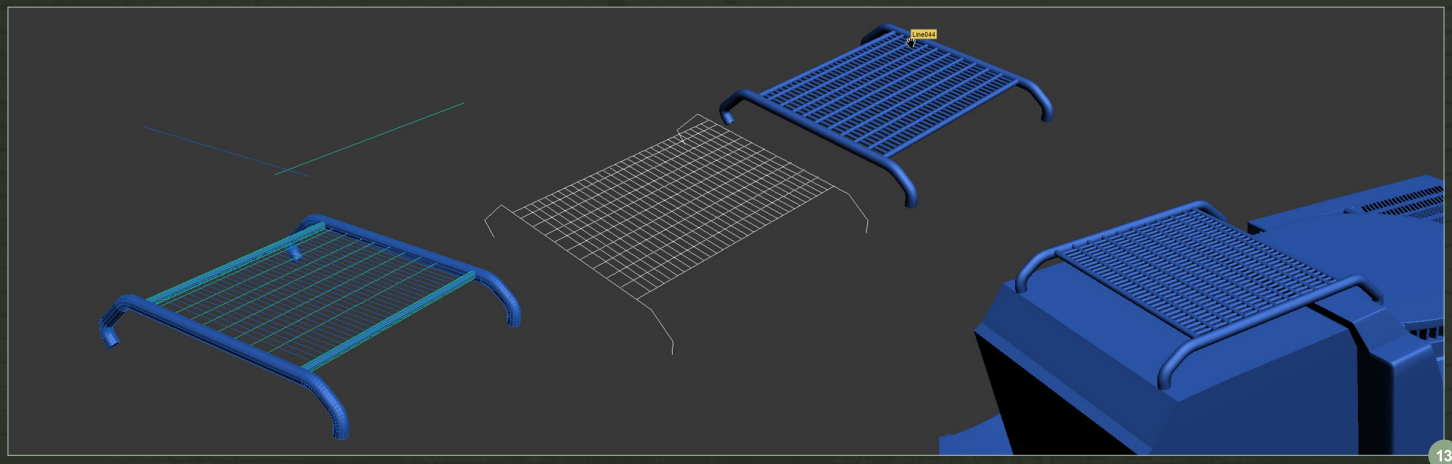
11

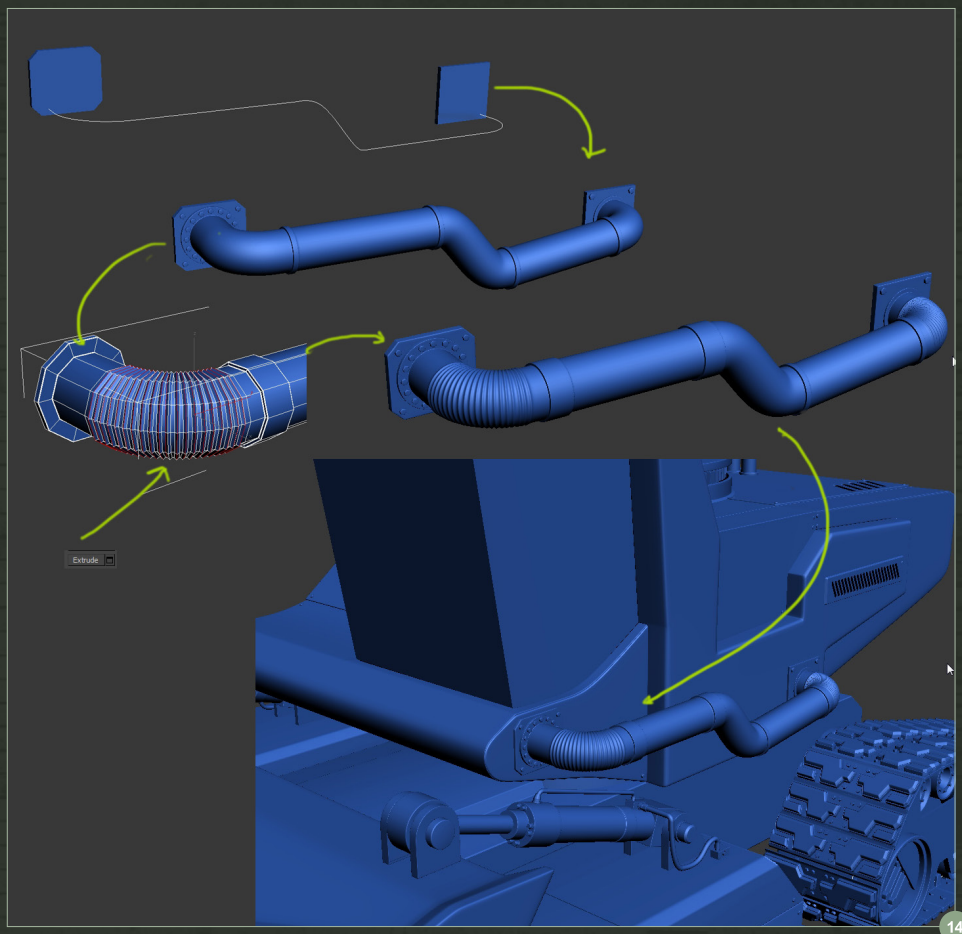
For the base of the hydraulic arm, start with a cylinder of 24 sides (**Fig.11**). For the entire shaping process, apply Extrude and Chamfer (A-B). For the gear inside, create a cylinder of 80 sides, select the edges of the sides, apply Chamfer to them and apply Bevel to create teeth (C-D).

To create the exhaust pipes, assume the spline will have a basic tube shape then apply Fillet and convert to an editable poly. Adjust the cylinder CAP to make a slanted shape, apply Extrude inwards, then select the edges and apply Chamfer. The base is now a simple cylinder with a Chamfer on the edge (**Fig.12**).

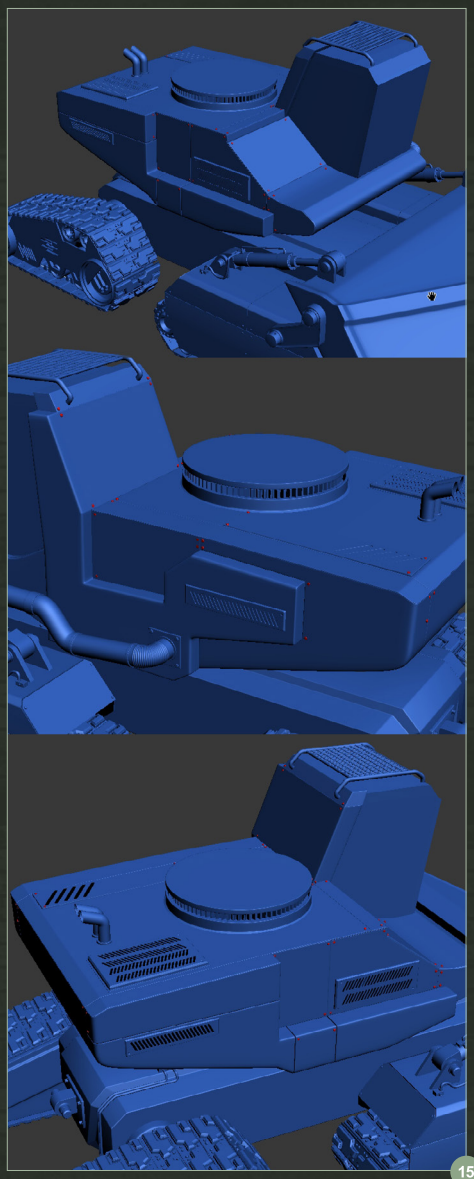

12

Another element that we will need to create is the grating that protects the cockpit. For this we will only use splines with different values. For the base create two splines; these will have a higher value of thickness. For the central gate, we create various splines that will be placed perpendicularly, so they can take the shape of a mesh; these will have a lower value of thickness (**Fig.13**).


13



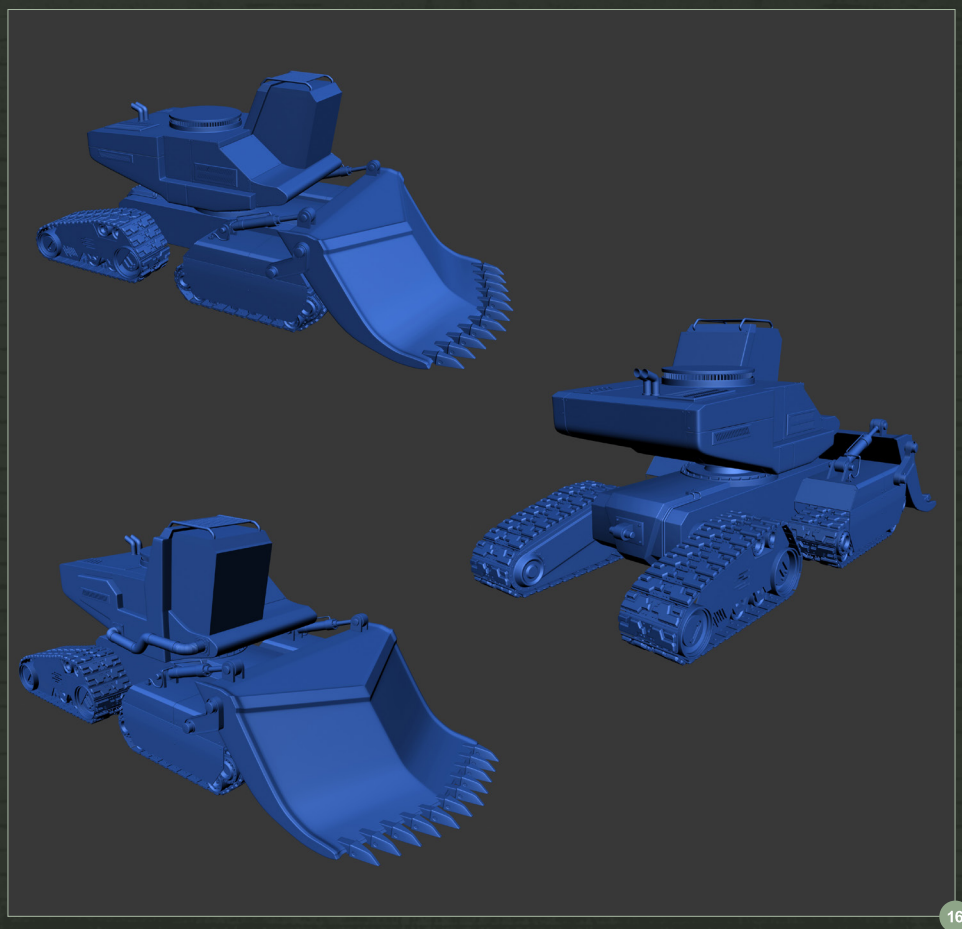
14



15

Another very simple element to create is the tubing on one of the sides of the cabin. Start with a spline then continue to an editable poly and apply Extrude to get the desired shape. To simulate a flexible hose, select the edges where the flexible section will be located and apply Extrude. The techniques to create the other elements that the tube comprises of have been previously mentioned (**Fig.14**).

We can put some rivets on the panels of the vehicle (**Fig.15**) and with this the modeling of the vehicle is finished (**Fig.16**).



16

ARTURO GARCIA
Web: http://dessga.cgsociety.org/gallery/
Email: dessga@yahoo.com.mx

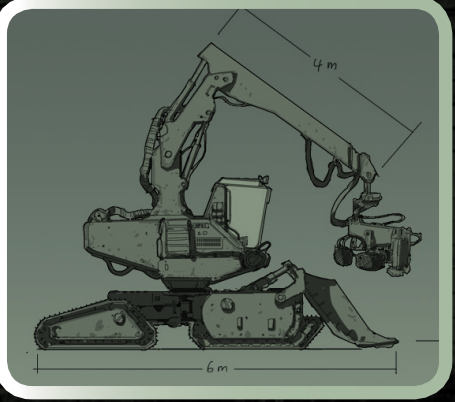
BEGINNER'S GUIDE TO MODELING

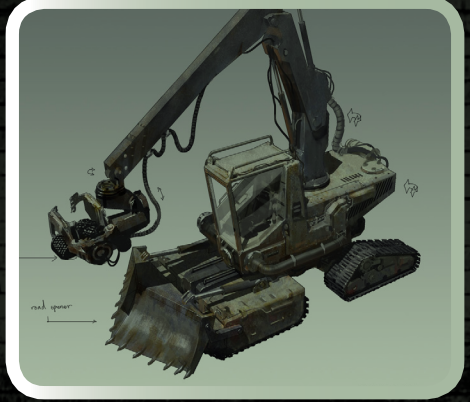
FUTURISTIC VEHICLES

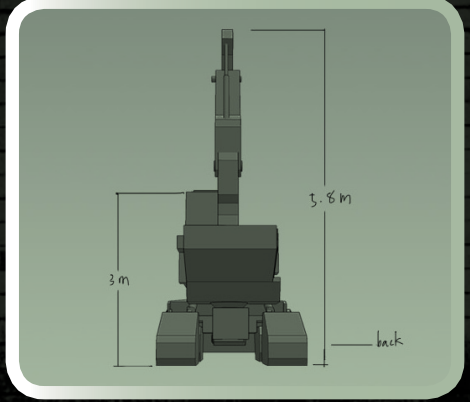


Futuristic vehicles are a common subject matter in the CG world. However, in this series we will be approaching creating futuristic vehicles in a slightly different way. Our two amazing artists have been provided with a 2D concept and technical drawing of a destructive deforestation vehicle. Over the eight-part series they will detail a step-by-step guide on how to turn this 2D information into an accurate and exciting 3D model, from the initial modeling phase through to the final rendering.

Maya







Chapter 03

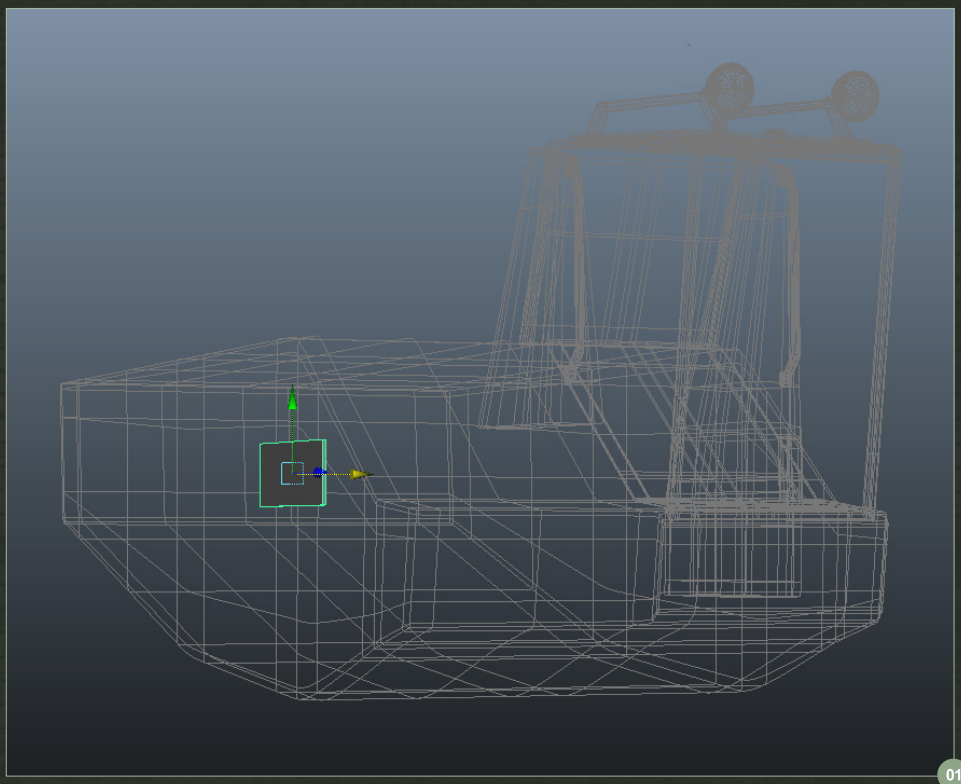
Software used: Maya

Introduction

In the last chapter we focused on the lower part of our machine, and we used MEL script to help us with the wheels and the pivot points of the mesh. In this chapter we're going to review the most important points in the construction of our model and basically work on adding edges, developing a technique that can be used in almost any work. Let's get started!

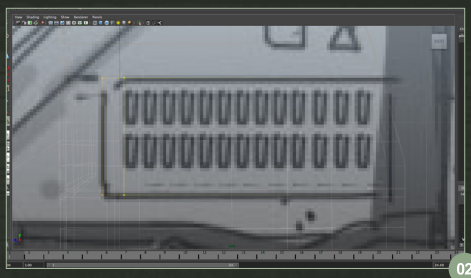
Modeling

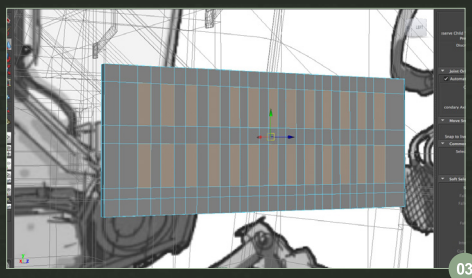
For details of the side, we go to the right orthographic view and create a cube from primitive shapes (**Fig.01**).

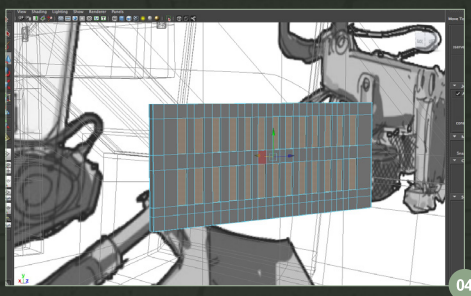

01

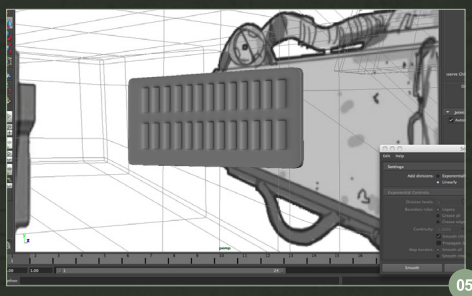
Viewing the references given by the concept, locate the shape, selecting their vertices. Once in place we can start manually subdividing our polygon. Why not use an automated method of subdivision, such as Smooth, to accelerate the process? Well, basically because dividing the geometry manually gives us the assurance that we have absolute control over the object. We will not have hundreds of annoying edges and vertices and so will not overload the model with unnecessary polygons.

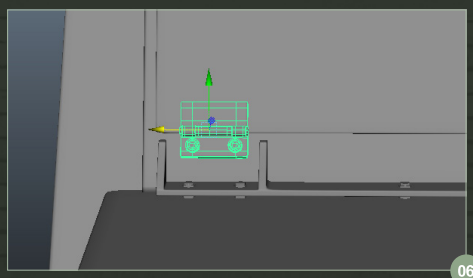
With the Insert Edge Loop Tool, start to add edges where the holes will soon be (**Fig.02**).


02


03


04

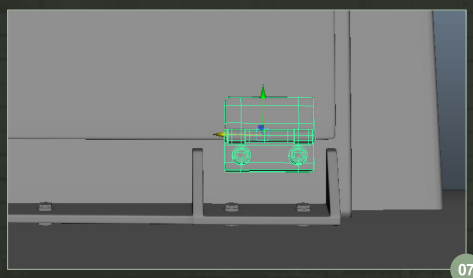

05


06

Once done, switch to Face Selection mode and select all the faces where the holes are found (**Fig.03**).

Once done, press Extrude and start moving the Z axis to a negative value to generate the details of this piece (**Fig.04**).

Then I press Extrude again – this additional extrude hardens the edges. By pressing 3 on the keyboard you will get rid of the hard edges, giving you a smooth finish (**Fig.05**).

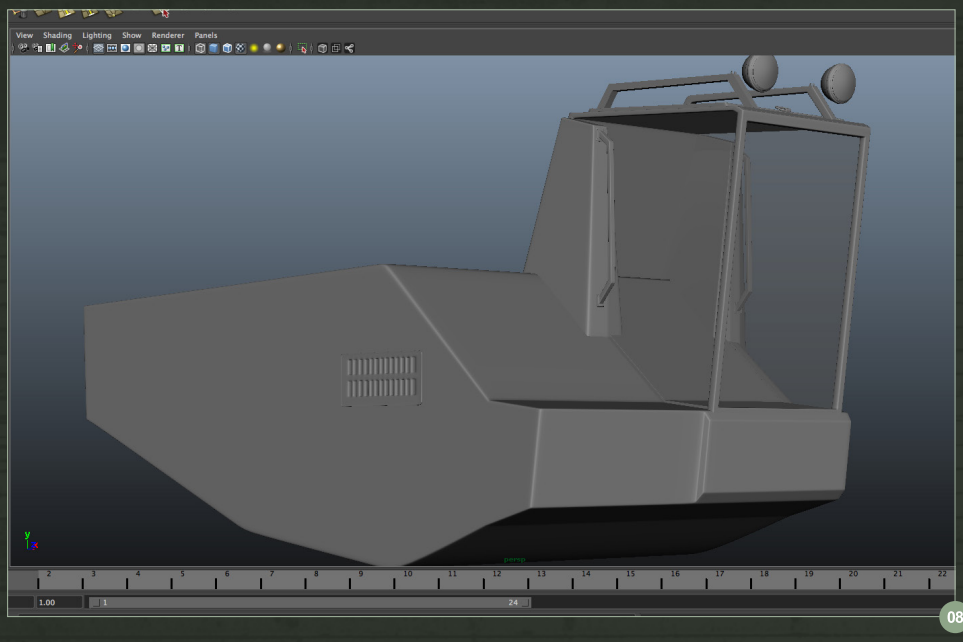

07

Always use small details within the modeling to maintain consistency and give credibility to the object. The only problem with this is that production takes too long, and time is one of the most valuable things. A good tip is to create a stock of screws and small parts, which can then be multiplied along an object and can also be used in another project (**Fig.06**).

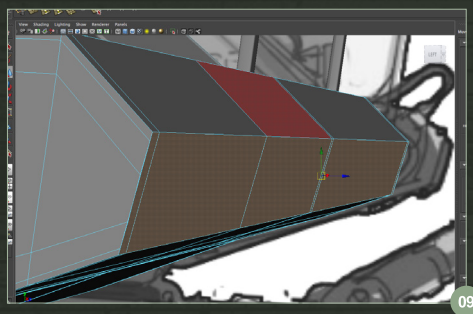
To keep the same distance between each screw, press Shift + D (**Fig.07**).

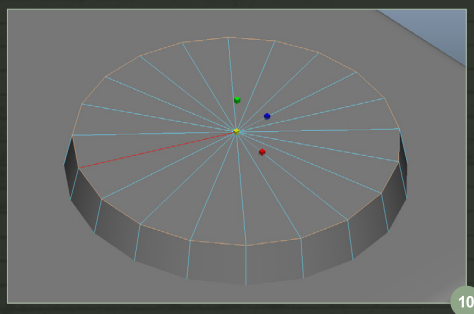
You will often find that the proportions will vary between difference concepts, and that designs are not always perfectly aligned or even coherent. When this happens, you should take advantage of it and try to review the options that are given. Even open new windows to explore new designs.

In this case I was guided by a concept where the front of the vehicle was completely flat (**Fig.08**). Personally I liked it, but when I continued modeling, I saw the need for another version, with a larger front and space for some tubes.



We're not going to add more geometry, so select the faces that we don't need and delete them. Then select the edges and extrude, guided by the side design. Once they are in the correct position, select the edges parallel with them and go to Edit Mesh > Bridge to create a polygon that connects both sides (**Fig.09**).

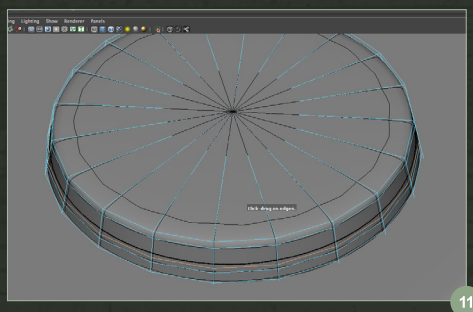


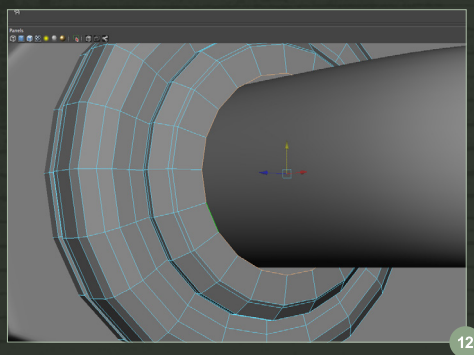


Once you have finished all the sides, to merge in Edit Mesh press the Interactive Split Polygon tool and create edges that were not created with Bridge. If the vertices are not joined, select the vertices, go to Edit Mesh and select Merge.

For the cover that is on the rear of the machine, use the cylinder, located in the proxy model (**Fig.10**).

Take the cylinder and start to add edges to create a smoother surface (**Fig.11**).





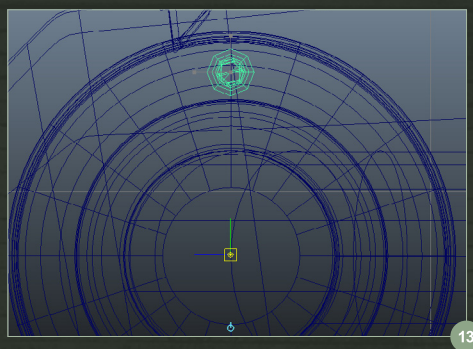
Next start playing with the cylinder for the main tube, using the Cut and Extrude Faces tools to begin to generate new shapes (**Fig.12**).

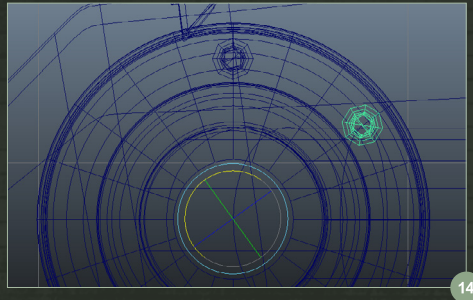
Once done, let's build the first screw. Then change the pivot point by pressing D on the keyboard and put it right in the center of the main cylinder (**Fig.13**).

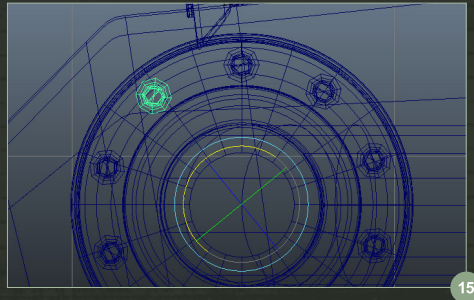
Duplicate it with Shift + D, and turn it 45 degrees to the right (**Fig.14**).

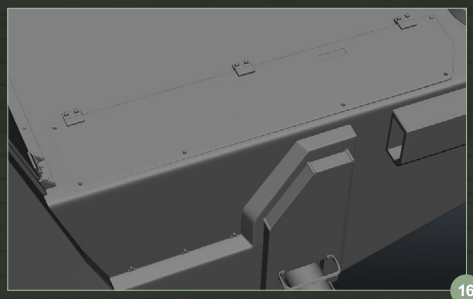
By pressing Shift + D again, repeat the action to complete the entire piece (**Fig.15**).

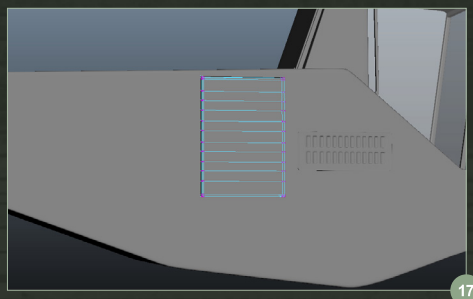
While I was modeling, I noticed that I had many flat parts without much geometry. To break that pattern I decided we should create small doors,

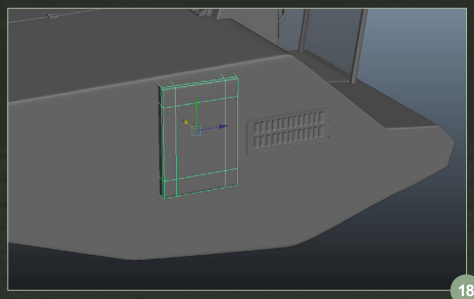


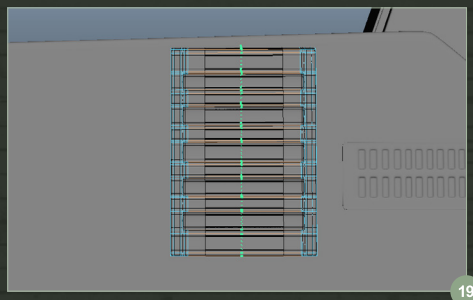


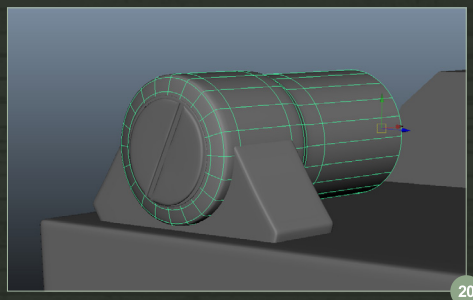


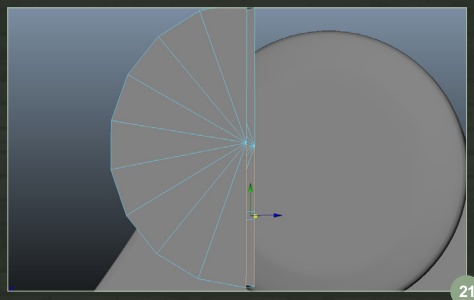

16


17


18


19


20


21

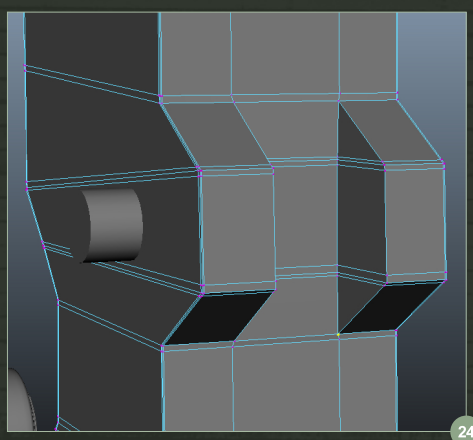
which add more detail to the model and also fill those empty spaces (**Fig.16**).

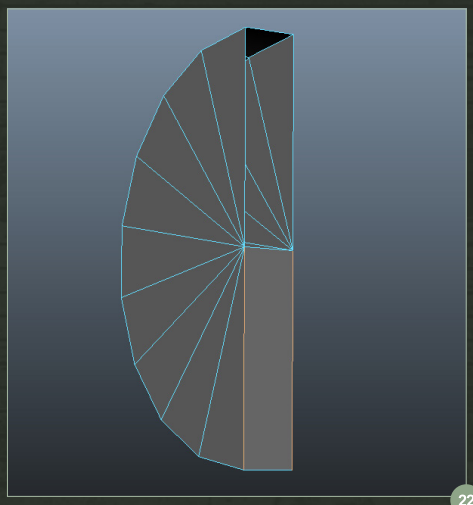
For the small metal box, located on the side of the machine's body, perform the same process as you've done previously and create a box on the right of the orthographic view (**Fig.17**).

Then, with the Interactive Edge Loop tool or the Cut Face tool, begin to subdivide the faces (**Fig.18**), using the concept as a guide (**Fig.19**).

A tube is located at the rear of the vehicle, from which flows a large hose. To make this we can use the tube from the proxy model, which I've subdivided to add edges (**Fig.20**).

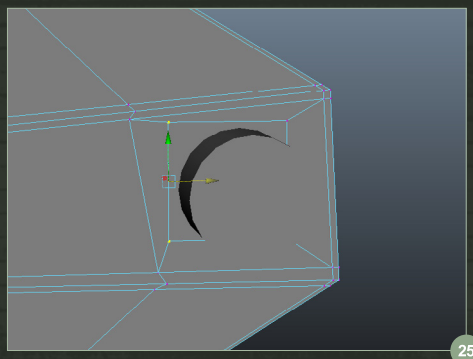
In the sides of this piece are located giant screws. To make these, take a cylinder and cut it in half (**Fig.21**).

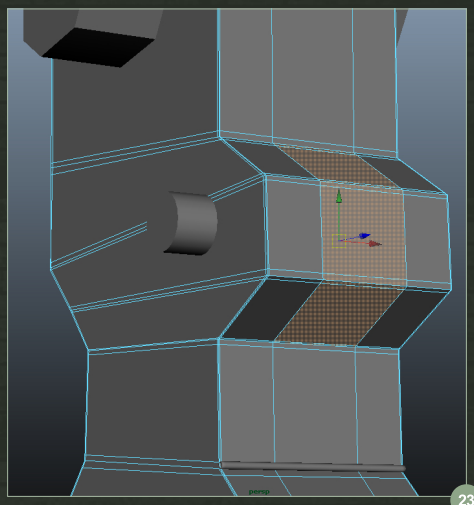

24


22

Then, using Bridge or Fill Hole, close the holes caused by the deleted faces (**Fig.22**). Finally, verify that everything is perfect and then smooth the surfaces.

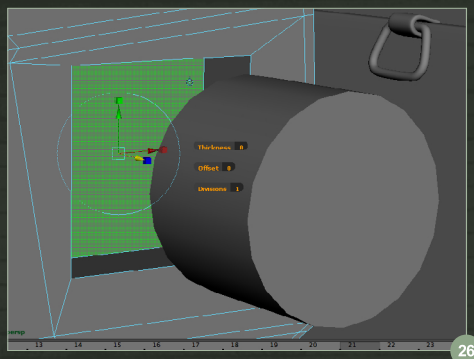
To continue, copy the arm from our low poly model and again, add new edges. Select the front of the arm (**Fig.23**) and extrude it to create the space where the suspension will be.


25


23

Then, with the Scale tool, flatten and scale the new shape (**Fig.24**).

The cylinders used in the reference model act as a guide as to where we'll create the holes. Take the face that we will extrude and, following the cylinder, move the vertices to create a perfect square (**Fig.25**), which is then extruded (**Fig.26**).


26

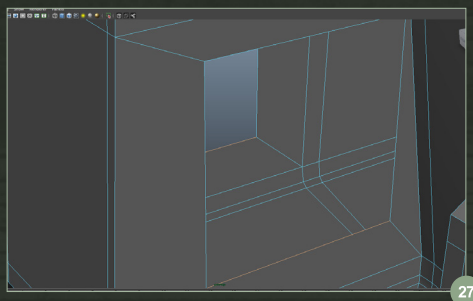
Perform the same action with the other side of the arm, selecting the edges of the hole and pressing Bridge to merge (**Fig.27**).

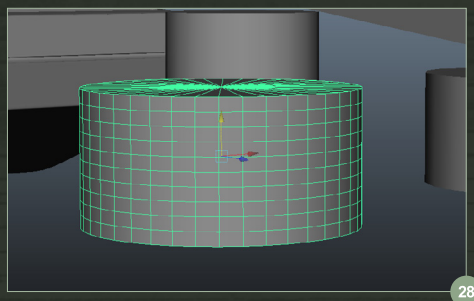
To create the tips of the cutters, take the cylinders and subdivide (**Fig.28**). Then go to Edit Mesh > Poke Face (**Fig.29**). This automatically creates new edges that cross through the faces (**Fig.30**).

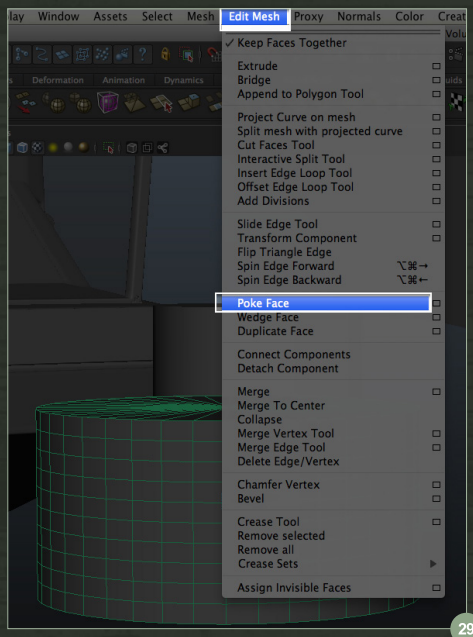
Then we go to an orthographic view, and select the vertices (**Fig.31**) and scale points (**Fig.32**).

To generate the tubes, first of all we need a good guide to position the NURBS curves. Create a cylinder with eight sides (**Fig.33**) and generate a circle NURB, which is where the tube will be placed (**Fig.34**). Move the pivot point, and place it in the center of the cylinder (**Fig.35**).

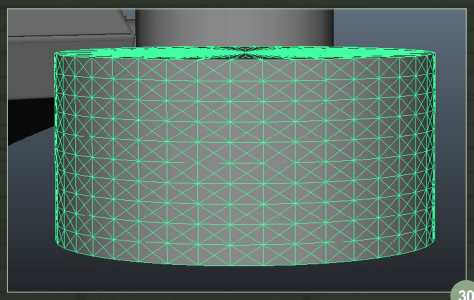
Then duplicate it with Shift + D, and rotate it to position it right in the center of one side of the cylinder (**Fig.36**). Finally press Shift + D several times until the cylinder is complete (**Fig.37**).

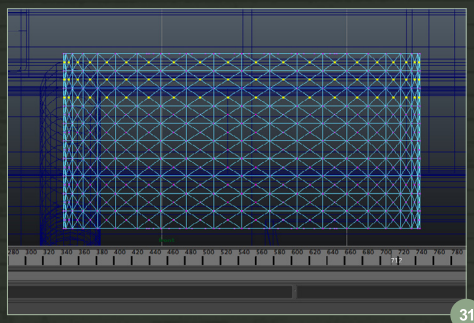

27

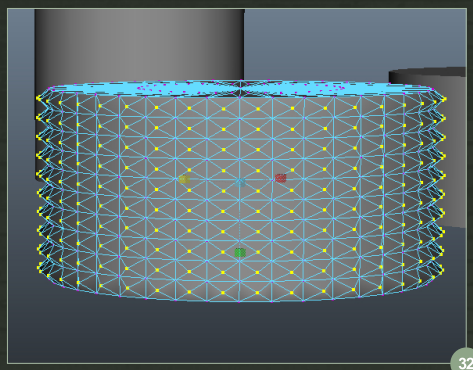

28

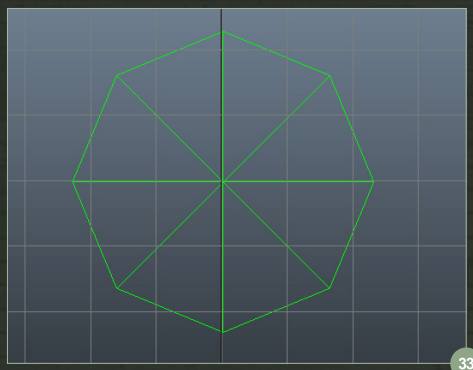


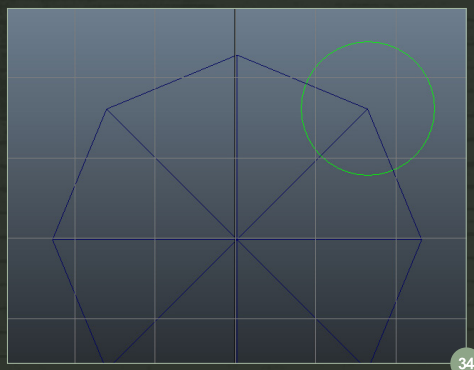
29

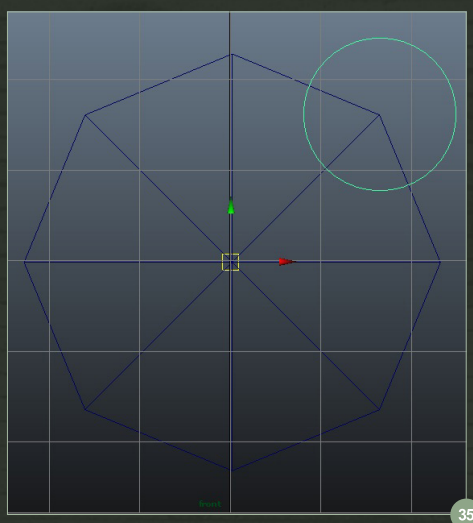

30

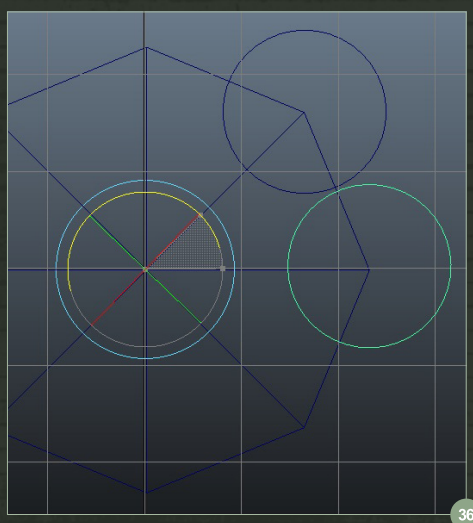

31

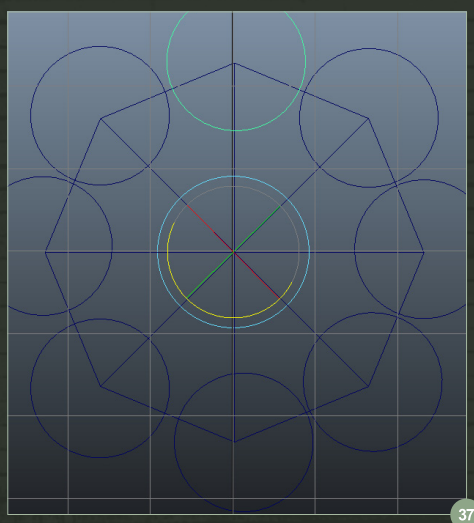

32


33


34


35


36


37

Select the cylinder and delete it (**Fig.38**), and then select all the NURBS and create a new group (Ctrl + G).

Create a CV Curve, basically drawing the cable (**Fig.39**).

Change to Surface mode (**Fig.40**) and go to Surfaces > Extruded (**Fig.41**). Then take one of the NURBS and press the Up arrow key to select the entire group.

Then press Extrude using the settings shown in **Fig.42**. Finally, press 3 on the keyboard to Smooth. If you want, you can hide the cables so that you can keep working without them being a problem (**Fig.43**).

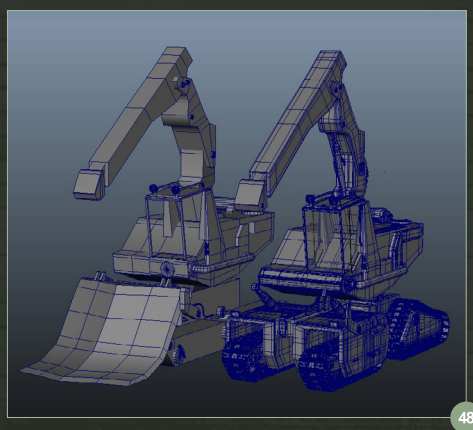
For the fasteners of our cable, create a tube (**Fig.44**). Then go to Animation mode, and search Attach to Motion Path. Using the CV Curve as a guide, press Attach (**Fig.45**).

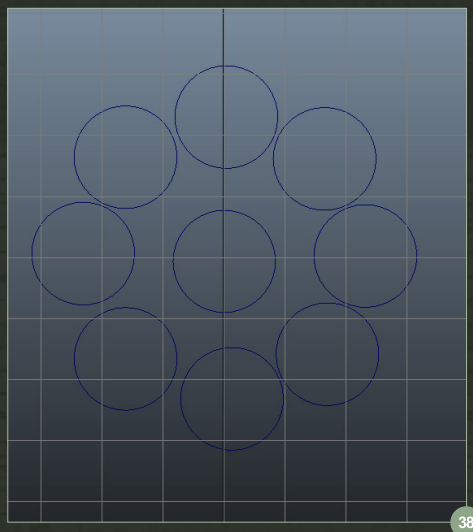
We're beginning to advance in the timeline, and you'll see our tube start moving along our curve (**Fig.46**). Select and duplicate the object where we need it (Ctrl + D). Basically it's a manual way of doing what the Extended Duplicate tool does.

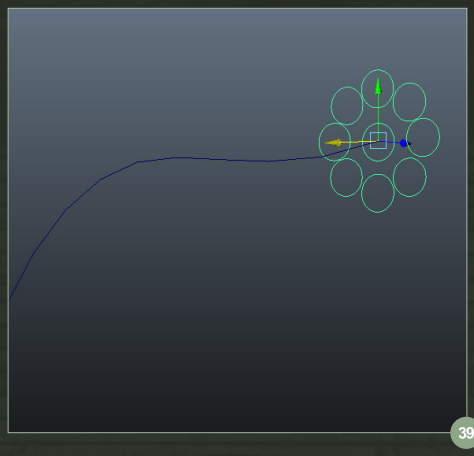
When this is done, randomly select some tubes and move or rotate them to get a much more organic look (**Fig.47**).

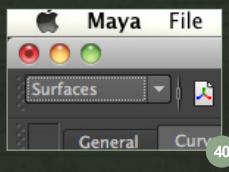
Conclusion

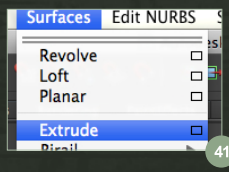
With that, we conclude the modeling process (**Fig.48**). We've created the basic edges, which will make the workflow faster and more accurate. In the next chapter we will begin the texturing and learn fast methods to create realistic metal textures and UVs.

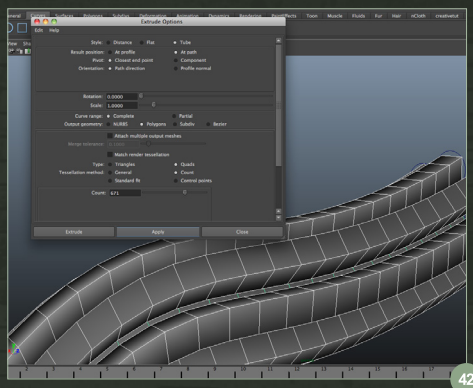


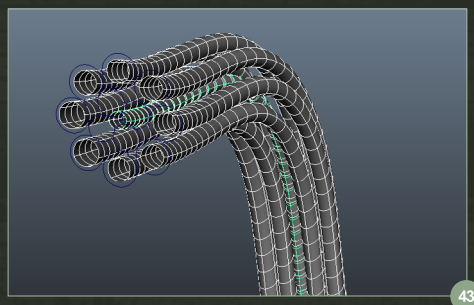


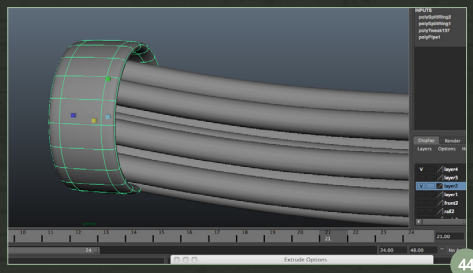


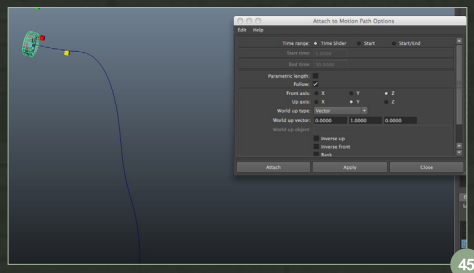


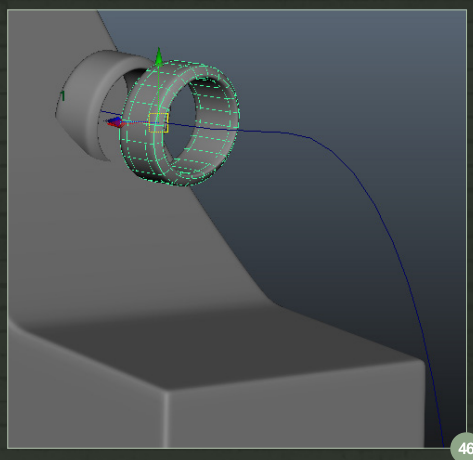


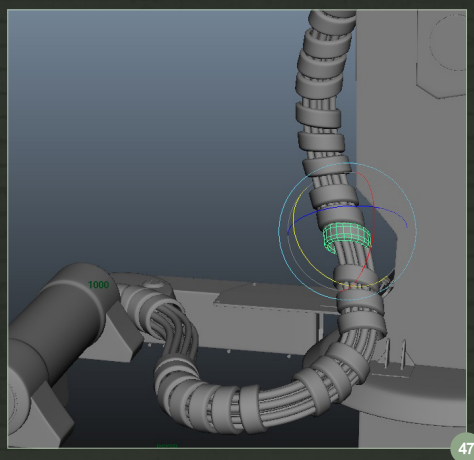












Renato Gonzalez Aguilante
Web: http://www.vimeo.com/renatogonzalez
Email: pehato@hotmail.com

AVAILABLE NOW!
DVD, Digital Download, Subsciption

THE GNOMON WORKSHOP

LEVEL UP YOUR DIGITAL SCULPTING SKILLS

TRAIN WITH KILLER ARTISTS



3D CHARACTER DESIGN SERIES
WITH SCOTT PATTON

In this two volume series, Scott Patton shows the processes he uses to create a 3D character for feature films. The first volume explores Patton's fast and efficient method for concept sculpting, skipping the 2D sketch phase all together and designing the character entirely within ZBrush®. He covers everything from blocking out the forms and fleshing out the muscles, to adding props, detailing with alphas and posing the character. The second volume covers methods for creating a final color rendering using ZBrush and Photoshop®. Patton shows how he squeezes the most from ZBrush's powerful renderer to create both a wide and close-up shot of the character. He then shares creative Photoshop tips and tricks to quickly get to a finished piece of concept art from the ZBrush renders, covering topics such as adding and refining skin texture, hair, eyes, shadows and scars. Patton also discusses how to create backgrounds that enhance the character and overall composition.

All Tutorials Are Now Available
As DVDs, Digital Downloads,
And Part of The Online Training Subscription

www.thegnomonworkshop.com

Learn Animation from the Best in the Business



Think Tank

TRAINING CENTRE

www.tttc.ca



Olivia

FEMALE CHARACTER CREATION WITH ANDREW HICKINBOTTOM

We are bringing you a special treat in the form of a three-part tutorial series by Andrew Hickinbottom, a talented and experienced character modeler, with a penchant for stylized pin-up girls. In this series Andrew will cover modeling, UV'ing, texturing, lighting, creating the background and post-production. Andrew continues this month with texturing and lighting stage of his character 'Olivia'.

Chapter 02 – Texturing & Lighting

Software used: 3ds Max, V-Ray and Photoshop

My name is Andrew Hickinbottom, and I am an experienced character modeler, with a preference for stylized pinup characters.

Introduction

I will be using 3ds Max, V-Ray and Photoshop, though the steps can be adapted to suit your preferred software. Basic knowledge of modeling tools and general program functionality are required.

Catch-up

In the first part of the tutorial, I showed how to create the Olivia model from scratch. In this part, I will document the unwrapping and texturing of Olivia, lighting, and show the gradual build up of the background and composition.

Unwrapping the Model

In order to texture the character, I need to unwrap it. It's best to plan how you will texture it, as that will affect the grouping of the UV co-ordinates. I decide to break the model's textures into skin, hair, bandana, shorts, eyes, and t-shirt. I give the whole model a planar UV projection to "reset" any UVs that may have been messed up or corrupted during the modeling process.

Now in the Unwrap UVW modifier window, pieces are broken off logically (arm, hand, leg, etc.,) using Editable Poly or Edge Selections and the Break tool. I then break edge seams (usually in the least noticeable place) and use the Relax tool on the element pieces to unwrap them flat. Some manual vertex pulling may be required, but for the most part, Relax does the job if you split the seams correctly.

The head was harder to unwrap. I broke the holed parts of it off, (eyes and mouth) and manually spaced out the UVs from a front projection. Then, these pieces were stitched back on to the head, and the points around the stitched area were relaxed slightly to blend the join. You will see that I only unwrapped one side of the model. This makes it easier and quicker for me to texture, seeing as there is no real need for asymmetrical texture detail here.

Fig.01 shows the unwrapped model with a checker test texture, and the skin UVs.

Texturing Olivia

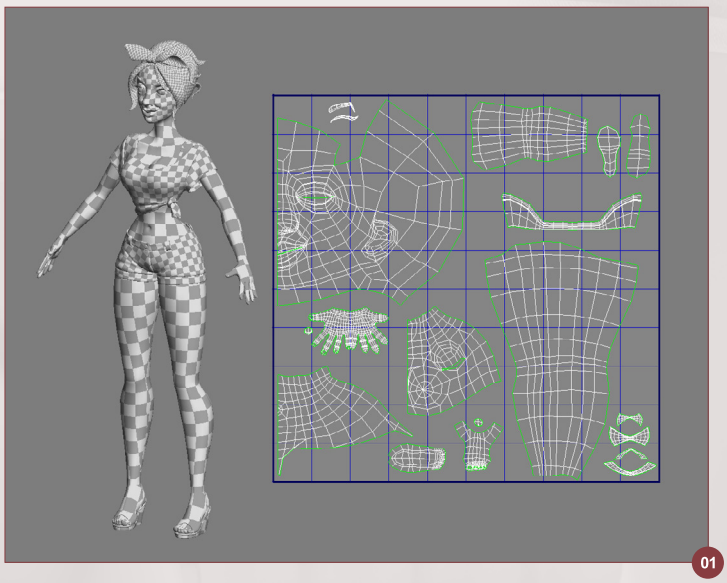
I intended for this scene to look stylized and not too realistic, so I tried to keep the textures simple. I used the Render UVW Template tool in the Unwrap UVW Modifier to output the UVs. You can select multiple objects to combine UVs – just make sure the modifier stack for each object is empty first.

In Photoshop, I overlaid the UV output at the top of the layer stack, and started painting. The skin was really simple: a base color, with airbrushed patches of light and dark tones, and some makeup – nothing too complex. The bandana comprises of a tile with a rough, hand-drawn pattern on it, repeated and used as a mix map. Mix maps are good, because I was able to assign the two colors within 3ds Max.

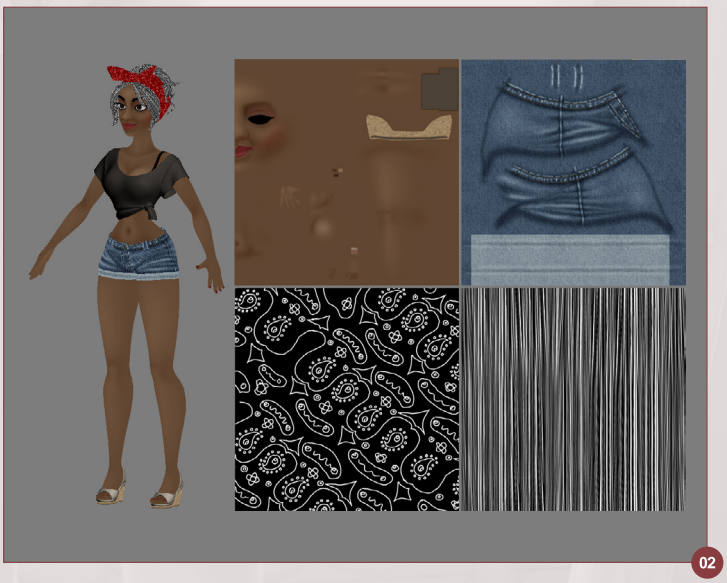
Her denim shorts were a bit more complex. The base color had multiple layers added containing airbrushed creases, seams, highlights, shadows and wear. Stitches were painted on and given a dark outer layer glow. Finally, a simple repeatable denim texture (from www.cgtextures.com) was applied.

Her hair was simply Photoshop Noise with vertical Motion Blur applied. I straightened out the hair's UVs, so that it followed the straight hair texture. Apart from a simple bump map for the shorts and hair, no other map channels were made, in order to keep it looking simple and illustrative, rather than realistic. Her t-shirt is the only part I did not texture; it is just a plain material.

Fig.02 shows the self-illuminated textured model, with a selection of maps.



01



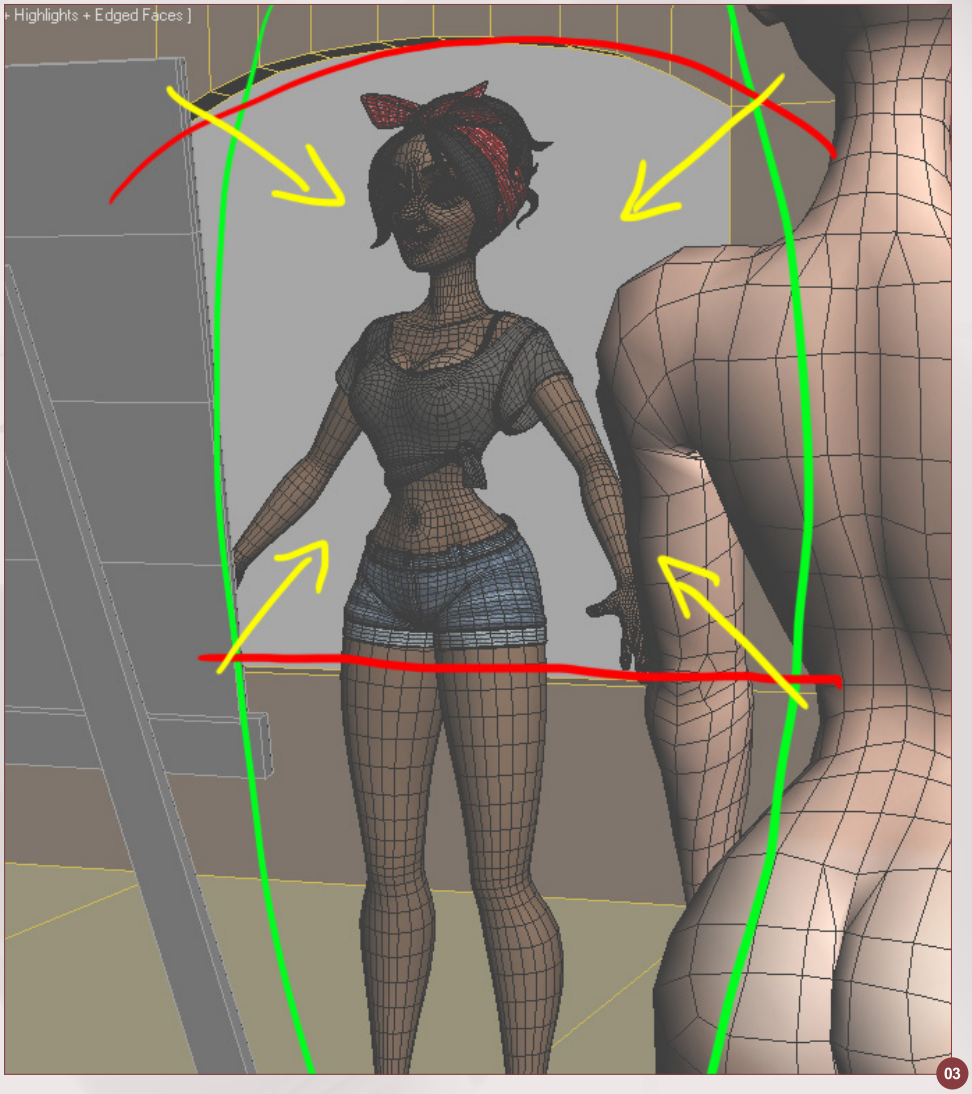
02

Composition

Now the main character is developed to a satisfactory level, I make a start on the environment and composition. I want Olivia to be framed by a bright, curved window, with an easel and a nude model in the foreground framing her and focusing the viewer's eye.

A simple easel is blocked out from box primitives and I brought in a character I previously made to act as the foreground model. This was just a placeholder; I re-used Olivia for this character later on. The walls and floor of the room were blocked out, and a window shape made to the size needed. Finally I set the image dimensions in the render settings and adjusted the Perspective viewport angle and Field-of-View until I got the composition I wanted.

Fig.03 shows the blocked-out composition, with paintovers illustrating the effect I wanted.



03

Posing

As Olivia was the centre of the composition, I needed to start choosing a pose for her now. I rotated and moved her rig limbs around to block out a series of similar poses. I set keys for the whole rig at five frame intervals, so I could drag the time slider to switch between poses.


04

I was pretty sure of what kind of pose I wanted; relaxed, with one hand on her hip, one hand raised delicately holding a paintbrush, and her head cocked with a cheeky smile. I tried several variations of it, looking for a strong, readable silhouette, with a natural posture, attitude and sexiness. I even tried posing like this in the mirror to see how the body's posture reacts (**Fig.04**)!

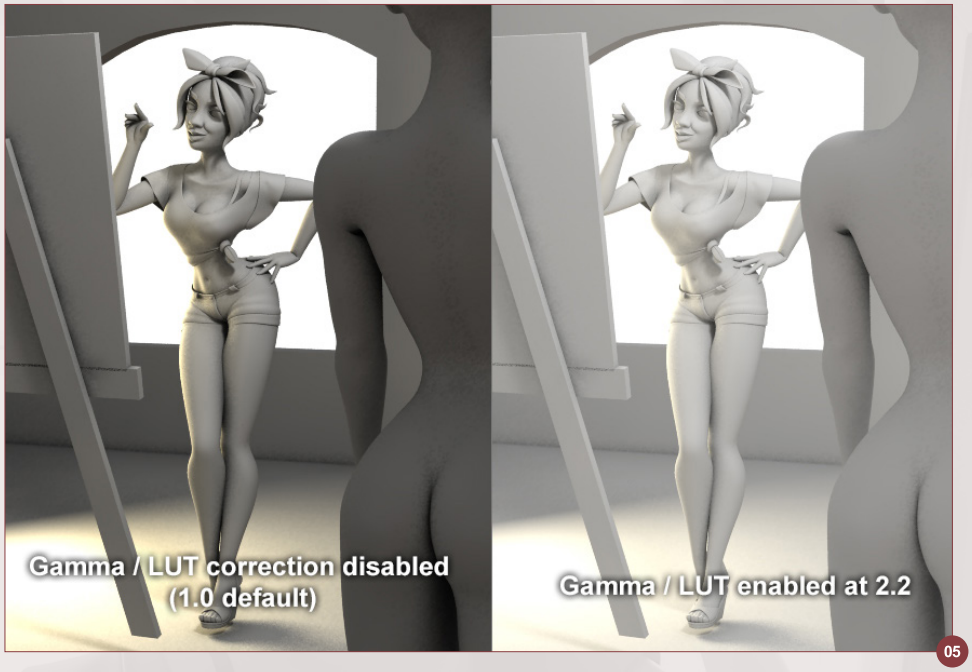
Linear Workflow and Gamma Correction

Getting a bright, airy look to an interior scene, with a backlit dark-skinned character was going to be tricky, so I decided to employ a little trick known as linear workflow. A detailed article on

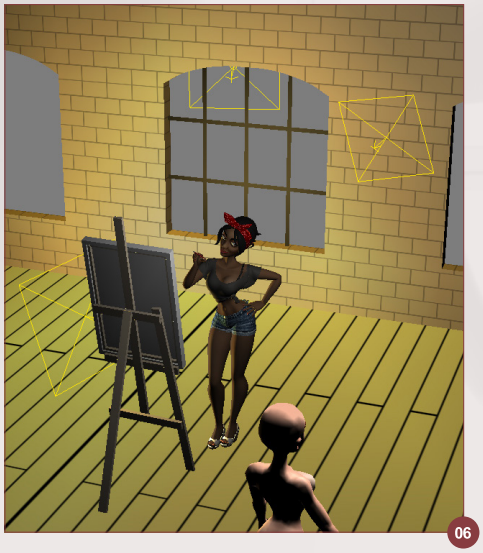
it written by my friend David Fleet can be read here: http://www.davidfleet.com/tutorials/linear-workflow

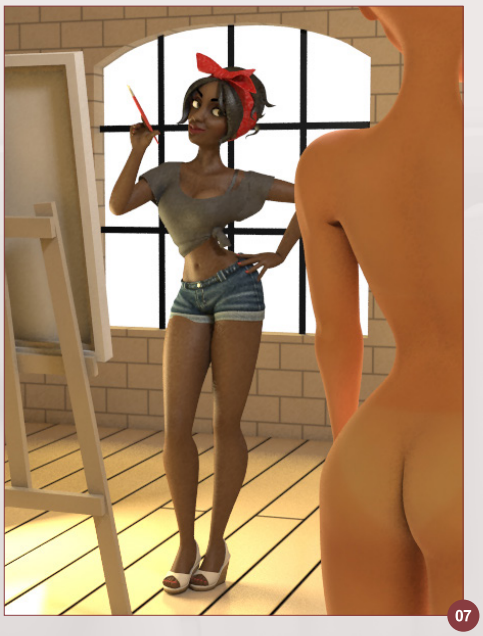
I'll explain it to you in a nutshell. Generally, indirect illumination (like V-Ray and mental ray) can be very sensitive, so in order to get brightly lit scenes, you often need to use several lights or make the lights brighter. This can make some surfaces white out, and could still keep shadowed areas quite dark.

Linear workflow increases 3ds Max's gamma, so that you have a lighter, more subtle range of shade to play with. I went to the Gamma and LUT tab in Preferences, enabled it, changed the gamma values to 2.2 and ticked the Affect Color Selectors and Affect Material Editor boxes. This basically boosts the gamma of the render outputs, which can leave colors and tones looking a little washed out, but the indirect illumination responds much better to adjustments, meaning you don't have to boost light to excessive levels to brighten your scene. **Fig.05** shows the difference linear workflow gamma makes to the gray, lit scene.



05


06


07

Scene Development and Lighting

The floor was given a colored procedural tiles texture and the values were adjusted to resemble floorboards. Procedural tiles were also applied to the walls to create basic brickwork. A poly grid (chamfered edges on a sectioned plane, with the gap polys deleted and shell added) was made to create the window frame, and the curve of the window alcove was smoothed. The easel model was developed further, but still not fully detailed yet. Finally, a simple paintbrush was modeled and added to Olivia's hand.

Lighting would play an important part in the scene, so I began setting up the lights. A V-Ray light was positioned outside the window, so that it cast a big pool of light inside the room; this is the primary light. Two other V-Ray lights were placed to the left and right of Olivia. The left one acts as a fake bounce light from the floor, and the right one acts as an ambient fill light to brighten up the scene.

Fig.06 shows their layout in the scene, and **Fig.07** shows the rendered result. I made sure I modeled the extent of the environment including additional windows, a ceiling, and a back wall. This is important, as the light from the window needs to bounce around the room and react like real light should.

Lighting Progress

I continued to adjust the lighting to get that warm, backlit, sunny scene I wanted. Next I moved on to trying to achieve a really strong rim light coming from behind Olivia, a neat, sharp pool of light on the floor, and the foreground girl in shadow, but with a bright rim light.

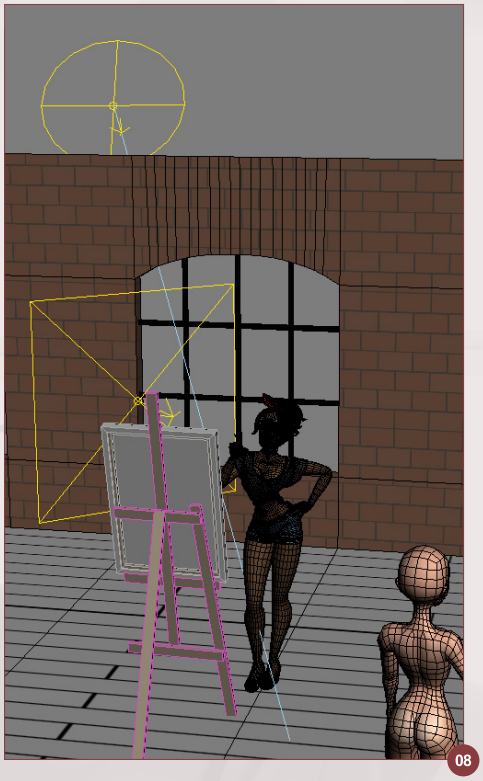
V-Ray area lights are difficult to get sharp shadows with, and they don't cover a large area, so I got rid of them and added a V-Ray sun light outside the window and aimed it to cast a pool of light at Olivia's feet. A large V-Ray area light was added behind Olivia and set to only affect her, and nothing else. This helped to create a strong rim light; a fake effect from the bright sunlight shining through the window.

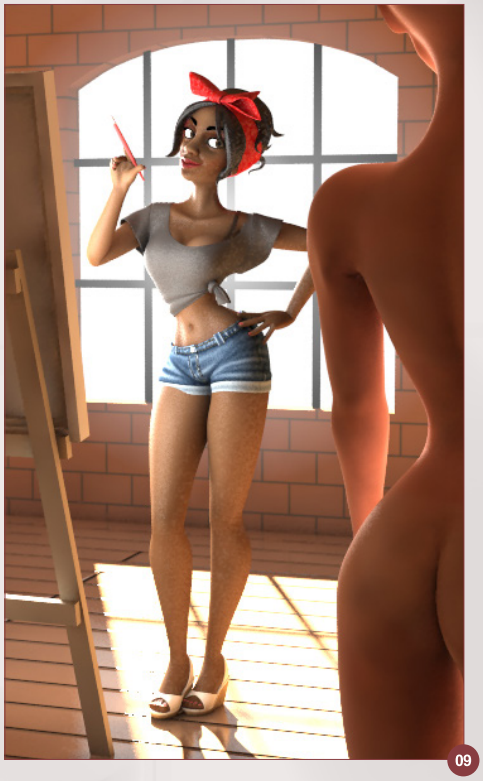
This new lighting setup can be seen in **Fig.08**. The indirect illumination from the sunlight bounced around the room like I wanted it to, giving me the warmer result as shown in **Fig.09**. Other aspects of the scene were also improved, such as the bricks and the floorboards.

Scene Detailing – Easel and Radiator

I was happy with how the overall look of the scene as progressing, so I began adding some detail to the background. I started modeling an old fashioned radiator from a simple shape extruded from half a tube. I applied two Symmetry Modifiers on two different axis, so I only had to work on a section of the object.

This piece was refined, duplicated, joined, and some pipes, valves and nuts were added to the ends. The easel was given more detail in the form of edge bevels, rounded ends and wing nuts, and the canvas was given a wooden frame and chamfered edges. The finished easel and radiator process wireframes can be seen in **Fig.10**.

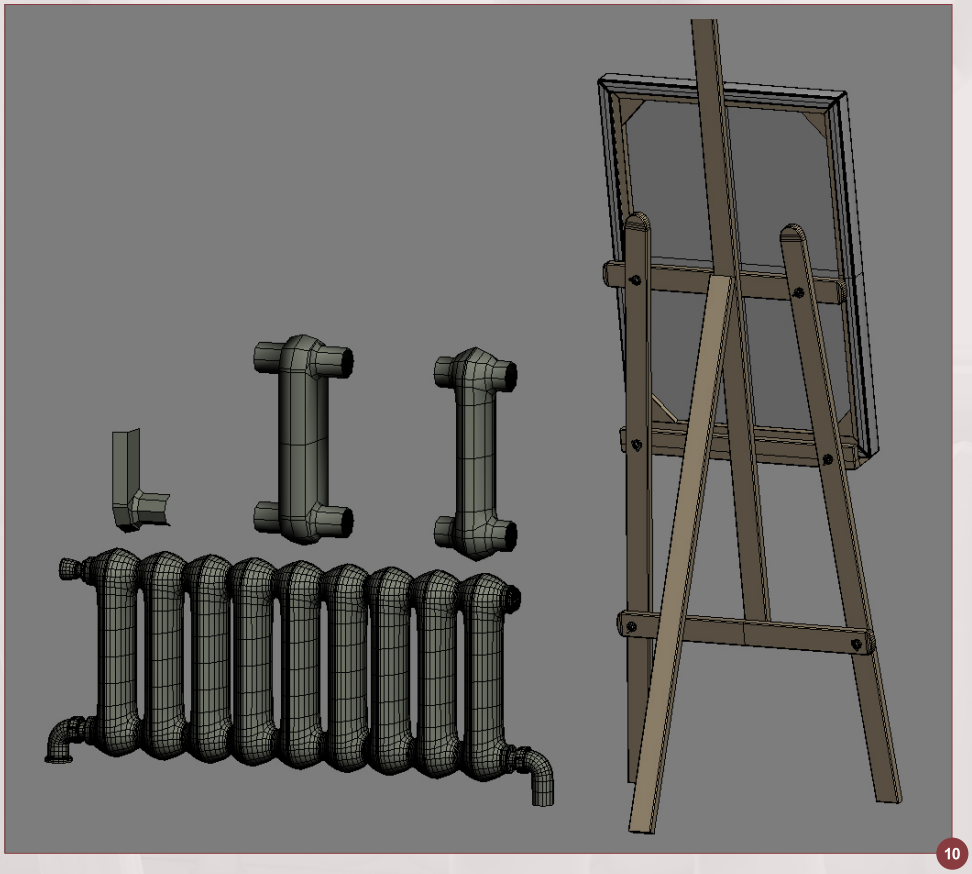

08


09

Wall and Floor Detailing

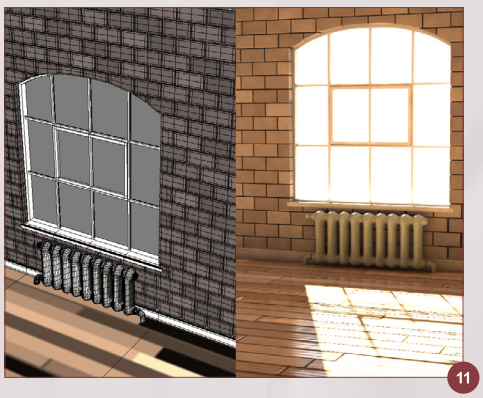
The procedural wall texture was given some color variance, and a skirting board was modeled at the bottom. The window was properly modeled with chamfered edges, a pivoting opening part in the center, a windowsill and an outer frame. All fairly basic hard surface modeling here, so I won't go into detail.

The procedural floorboards were given more color and specular variance, and a simple streaky, wooden, specular map was mixed in to make the reflections more interesting. The walls were still looking a bit flat, so I modeled a simple subdivided brick and repeated it, matching the placement of the procedural brick texture on the wall. A wireframe and render of the improved walls, window and floor can be seen in **Fig.11**.


10

Subsurface Scattering

I wanted the scene to have a warm, soft feel


11

to it, so I put a sub-surface scattering shader on Olivia's skin. I have never managed to get satisfactory results with SSS in the past, but after much experimentation and adjustment, I managed to get it looking pretty good.

You can see the settings I used in **Fig.12**. It's not that far removed from the VRayFastSSS2 pink skin preset. By only using a diffuse map, it makes things easier to control too.

As you can see from **Fig.13 – 14**, the SSS shader made Olivia's skin react with the light in a much more interesting way, creating some really strong rim lighting (I'll tone it down later), and some warm reflected light around the knees.

You can see on the close-ups that it's really noisy at the moment. I'll address this later when rendering out the final image components. I now spent a while adjusting some of the lighting and shading values slightly, to adapt the SSS to the scene.

Conclusion

That's all for part two (**Fig.15**). This project progressed quite chaotically, so excuse the somewhat un-ordered steps as I progress. It's more of "how I made it" documentation rather than a guide that you should follow to the letter.

I like to develop several aspects of the scene simultaneously, so I can get a feel for the illustration as a whole, rather than spending days on one element, only to find it doesn't quite work in the scene.

I will conclude my steps in the third and final part, which will cover detailing, lighting improvement, composition refining, rendering and compositing in Photoshop.

Andrew Hickinbottom

Web: http://andrewhickinbottom.com/

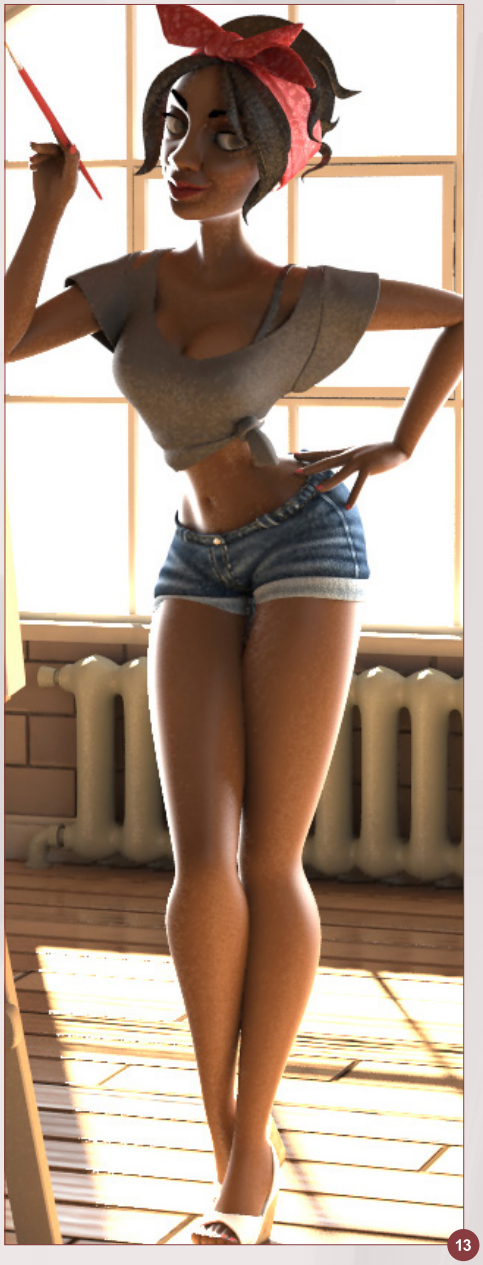
Email: andyh3d@gmail.com

(1) : Olivia skin — VRayFastSSS2

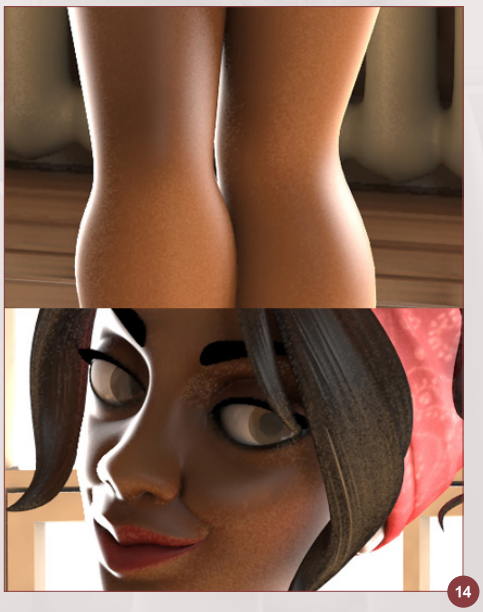
- General parameters
 - preset: Skin (pink)
 - prepass rate: -1
 - scale: 1.0
 - IOR: 1.3
- Diffuse and sub-surface scattering layers
 - overall color
 - diffuse color
 - diffuse amount: 1.0
 - sub surface color
 - scatter color
 - scatter radius (in cm): 1.0
 - phase function: 0.8
- Specular layer
 - specular color
 - specular amount: 1.0
 - specular glossiness: 0.5
 - specular subdivs: 8
 - trace reflections
 - reflection depth: 5
- Options
 - single scatter: Simple
 - single scatter subdivs: 8
 - refraction depth: 5
 - front lighting
 - back lighting
 - scatter gi
 - prepass blur: 1.2
 - cutoff threshold: 0.01
- Maps

bump	30.0	None
overall color	100.0	None
diffuse color	100.0	Map #119 (Olivia body.psd)
diffuse amount	100.0	None
specular color	100.0	None
specular amount	100.0	None
specular glossiness	100.0	None
sss color	100.0	None
scatter color	100.0	None
scatter radius	100.0	None

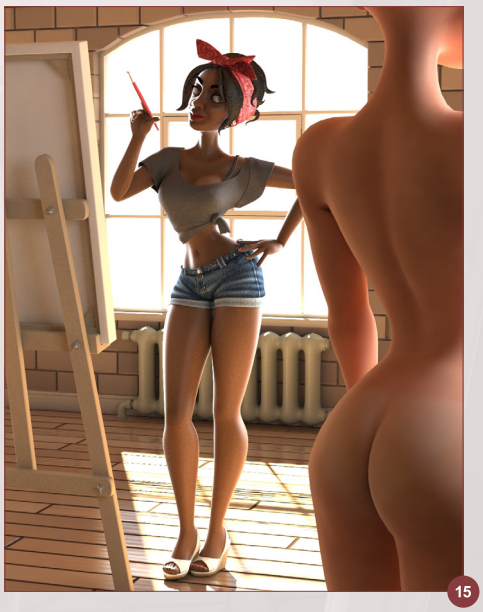
12



13

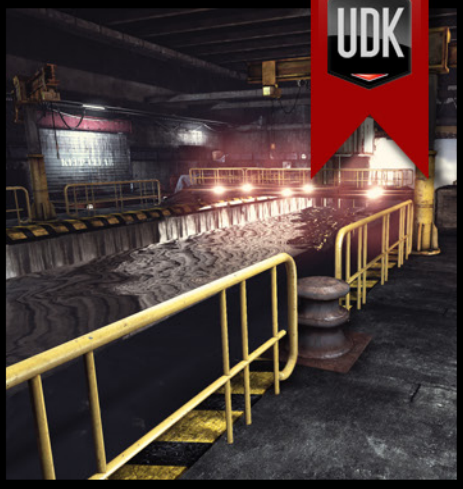


14



15





In the modern world so many things seem to become popular and then disappear just as quickly as they arrived, however the games industry has proven itself to be ever present and continues to develop and thrive. For any CG artist the games industry continues to be the most obvious and abundant form of employment, but taking the step from a modeler to creating a games level at a professional standard is no easy task. In this series of tutorials industry professional Andrew Finch will be talking you through how to make a very cool playable games level using the Unreal Development Kit. Whether you are looking to create a cool portfolio piece or just looking for a fun project to try, this tutorial series is perfect for you.



THE SUBMARINE PEN

CHAPTER 06 - FINAL LAYOUT OF ASSETS

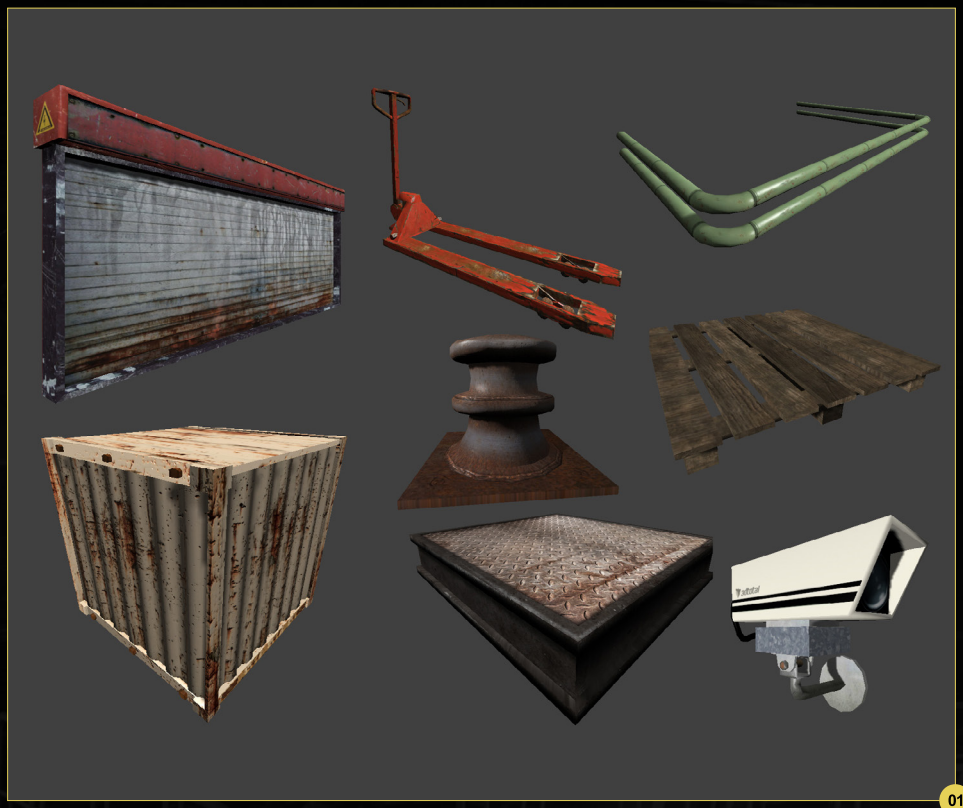
CHAPTER 06 – FINAL LAYOUT OF ASSETS

Software used: UDK, 3ds Max and Photoshop

Welcome to the sixth part of my tutorial series in which I'm guiding you through the creation of an environment built in the games engine UDK, from the concept to the completion. This is an intermediate level tutorial and you should have at least basic knowledge of the software used. This tutorial is about the bigger picture of creating an environment; I won't be focusing on creating an amazing asset, instead I will be giving an overview of the process of creating the whole environment.

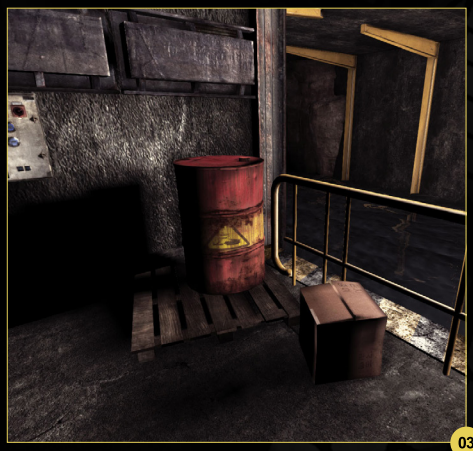
In the last chapter we started to create custom assets that suited our type of environment. We also started the first pass on the layout of the assets within our environment, and we will complete the final layout of assets by the end of this chapter.

Continuing on from the last chapter, you can see the remaining assets I created to populate the environment and finalize the layout in **Fig.01 – 02**. They show the assets complete with textures and materials applied.


01


02

These assets are then placed in the scene and duplicated around the environment, creating points of interest and cover for the player. As this is a game environment it also needs to be a "working" environment that can accommodate a player running and jumping around, and getting into fire fights with enemies. So using all of the assets we have created, let's start creating some interesting areas.


03

I tried to fill the corners in, so you can't see where the walls and floors meet. Instead of just placing a barrel on its own, I placed it on top of a pallet and to finish it off I added a small box next to it. It's simple, but effective, and turns a boring corner into something a little more interesting (**Fig.03**).

Fig.04 shows a corner of the environment that's a little more complex. In order to create a more believable environment it's important to think about how objects are used and placed in the real world.


04

Here I placed wooden and cardboard boxes under and on top of the scaffolding, so it looks like a used area. Also you can see a cloth object I have placed on the scaffolding poles. This asset has an organic, natural shape and is very different from the rest of the assets. It's a bespoke object specifically made to fit this space and hang from the scaffolding.

When we have finished lighting this environment, you should get some nice shadows and highlights on the cloth, and it would make for a good screen shot for your portfolio. I will go into more detail on how I made this object a little later on in this tutorial.

Using the same assets, you can fill up the corners in different ways. In **Fig.05** the space was narrow but tall, so I stacked the scaffolding on top of each other to fill the space, again placing assets on and around the main structure to make it look like it has been used.


05


06

Fig.06 shows a long narrow space. I placed the assets along the wall's edge, to hide the joining of wall and floor. I also made sure I kept the floor free from obstruction, so the player can't get stuck on assets during game play. When placing duplicate assets next to each other, you should always make sure you rotate them to make them look different from one another and more naturally placed.


07

During the last tutorial I placed the overhead crane in the environment. In **Fig.07** you can see I have placed a metal shipping crate on the crane, so it looks like the crane is functional and has a purpose. I did this for both the cranes, one in each room.



08



09

Most of the groups of assets I have created have been quite minimal; however in this area I have used the shelf assets to fill the wall space. I have also filled the shelves with lots of boxes and containers to make the shelves look well used. Remember to rotate and, if possible, scale your assets to create a natural placement.

I also placed wooden crates between the shelves and gas canisters on the end. This creates a more interesting shape, so the assets go from big to small, and keeps your eye moving around the image. This is a good technique to use to create compositions for your screenshots (**Fig.08**).

to convince the player this is a real environment, we need to make sure the paths leading in and out of the doors are kept free from blockage.

Again, using the same assets but placing them differently, I have created a dark and dirty corner. When we have final lighting this area should really come to life, as there are a few different materials that should contrast with each other nicely. There are also plenty of objects and layers to create some interesting shadows (**Fig.10**).

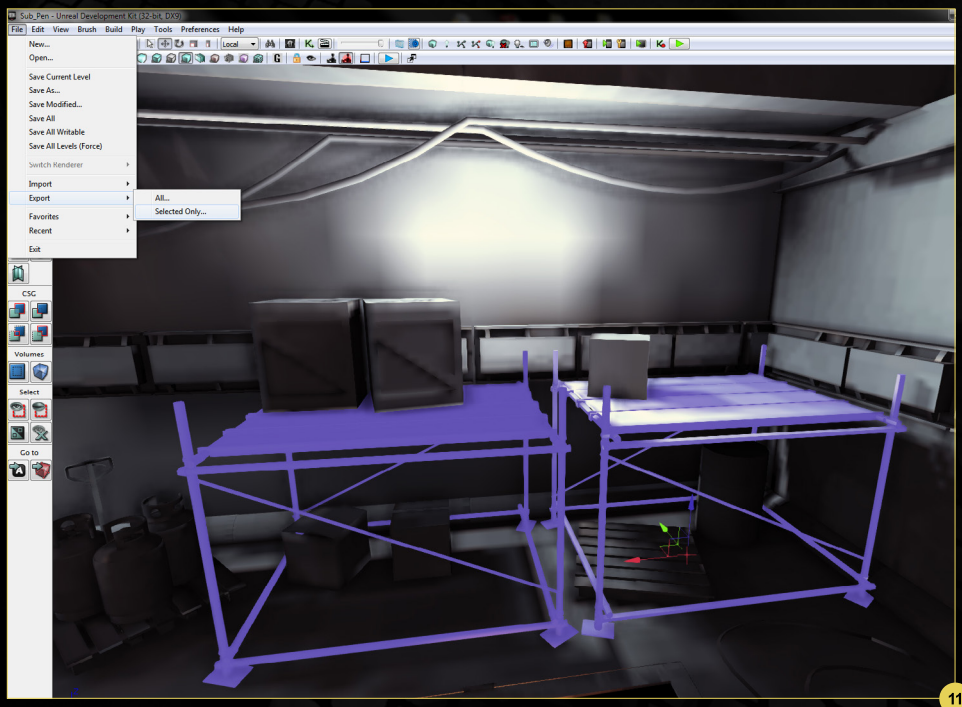


10

The next three images show a few more examples of areas in the environment that I have populated with assets. In **Fig.09** I have added the garage door and made sure I haven't placed any assets in front of the door. Later on in this series I will be adding decals on the floor to provide more interesting details and objects will get in the way of this. Also, if we are trying

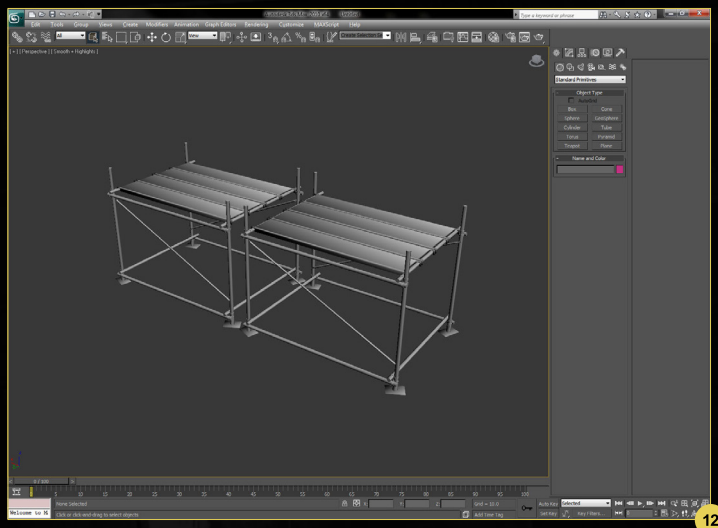
This completes our placement for now. We can always move things around later and when we start to add the finishing touches, we can re-configure the placement to get the best-looking results.

Earlier I talked about how I created a bespoke cloth asset to place on objects in the scene. First we need to find the place in our environment where we want to place the cloth.



11

Fig.11 shows the assets selected that the cloth will be interacting with in UDK. With all the required assets selected we can export these models from UDK back into 3ds Max. We do this so it keeps the placement and makes it a lot easier to line the cloth up more accurately. With the two scaffolding objects selected, go to File > Export > Selected Only. This will save the selected objects as an .OBJ file type that you can then import into 3ds Max.



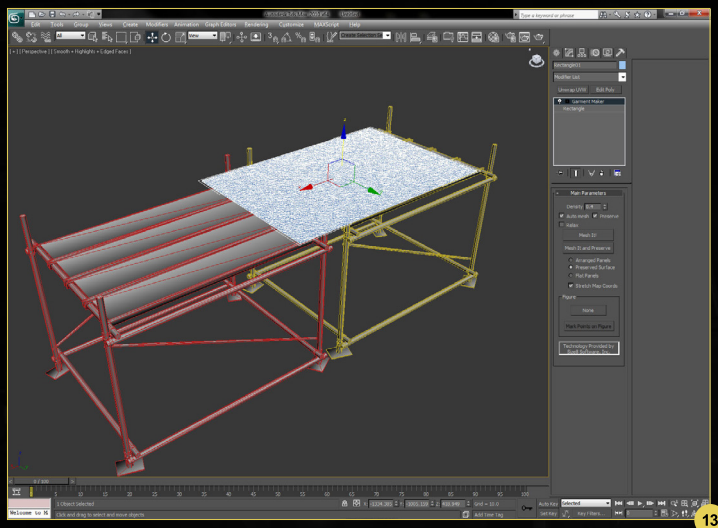
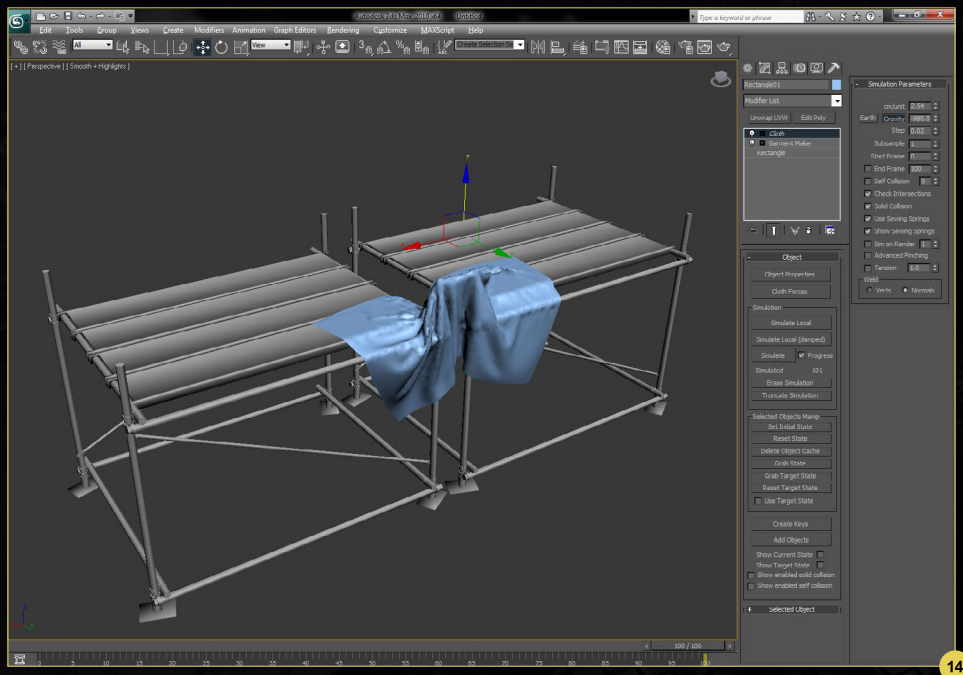


Fig.12 shows the scaffolding objects in Max, perfectly placed to match how they sit in UDK.

You can see here I created a rectangular object the size I wanted the cloth to be and then applied a Garment Maker modifier to it. This modifier subdivides the mesh in a better way for the cloth simulation to look the most realistic. You can also set the density to something acceptable for the UDK engine (**Fig.13**).



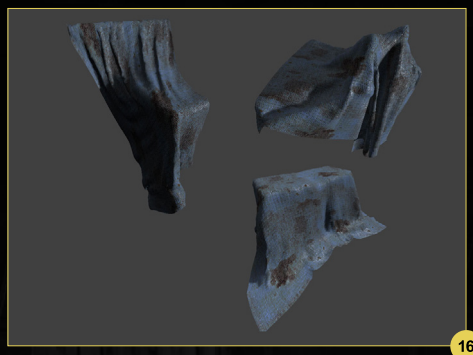
Here I added the Cloth modifier to the cloth. I made the scaffolding objects the collision objects and the rectangle the cloth object. Now when you run the simulation in the modifier, the cloth will fall and drape over the scaffolding assets, creating realistic-looking cloth.



3ds Max has some good Help information on this modifier, so you can look at that to get more information. There are a lot of settings you can tweak to get different weights on your cloth, depending on what type of material you want to create. For this tutorial the default settings worked perfectly (**Fig.14**).

You can see the final asset all textured and placed in UDK in **Fig.15**. This is a really quick, simple technique for a great-looking asset.

Fig.16 shows the other cloth assets in our environment. As you can see, you can drape cloth over lots of objects to create some aesthetically pleasing designs.



16

Fig.17 – 19 shows the final layout for our submarine pen environment. There may still be some slight moving about when the lighting starts to go in; this is when the environment will spring into life and really start to look like a finished, professional games environment.

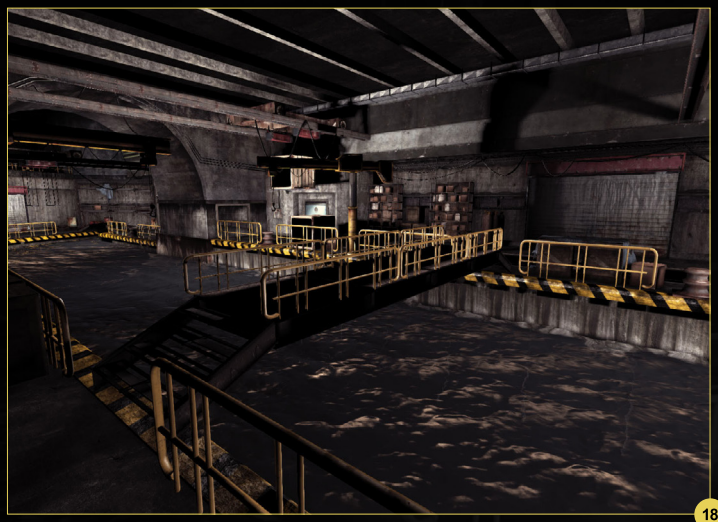
In the next chapter we will start the polishing phase of the environment and begin to add decals for things like writing on the walls and paint on the floors. I will also do a first pass on the lighting. By the end of the next chapter the environment will have taken a massive leap forward and will start to look finished. Thanks for reading.

ANDREW FINCH

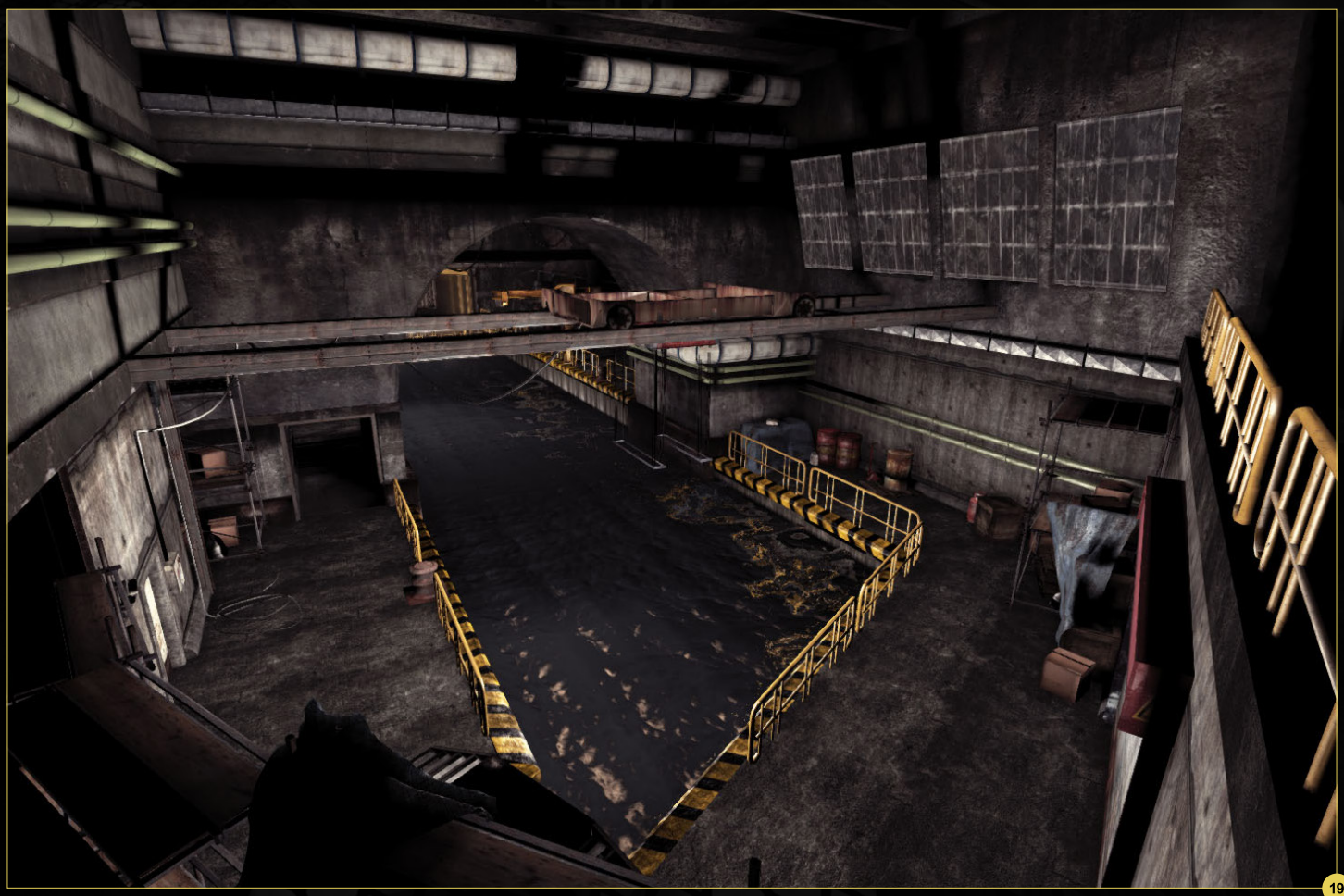
Email: afinchy@gmail.com



17



18

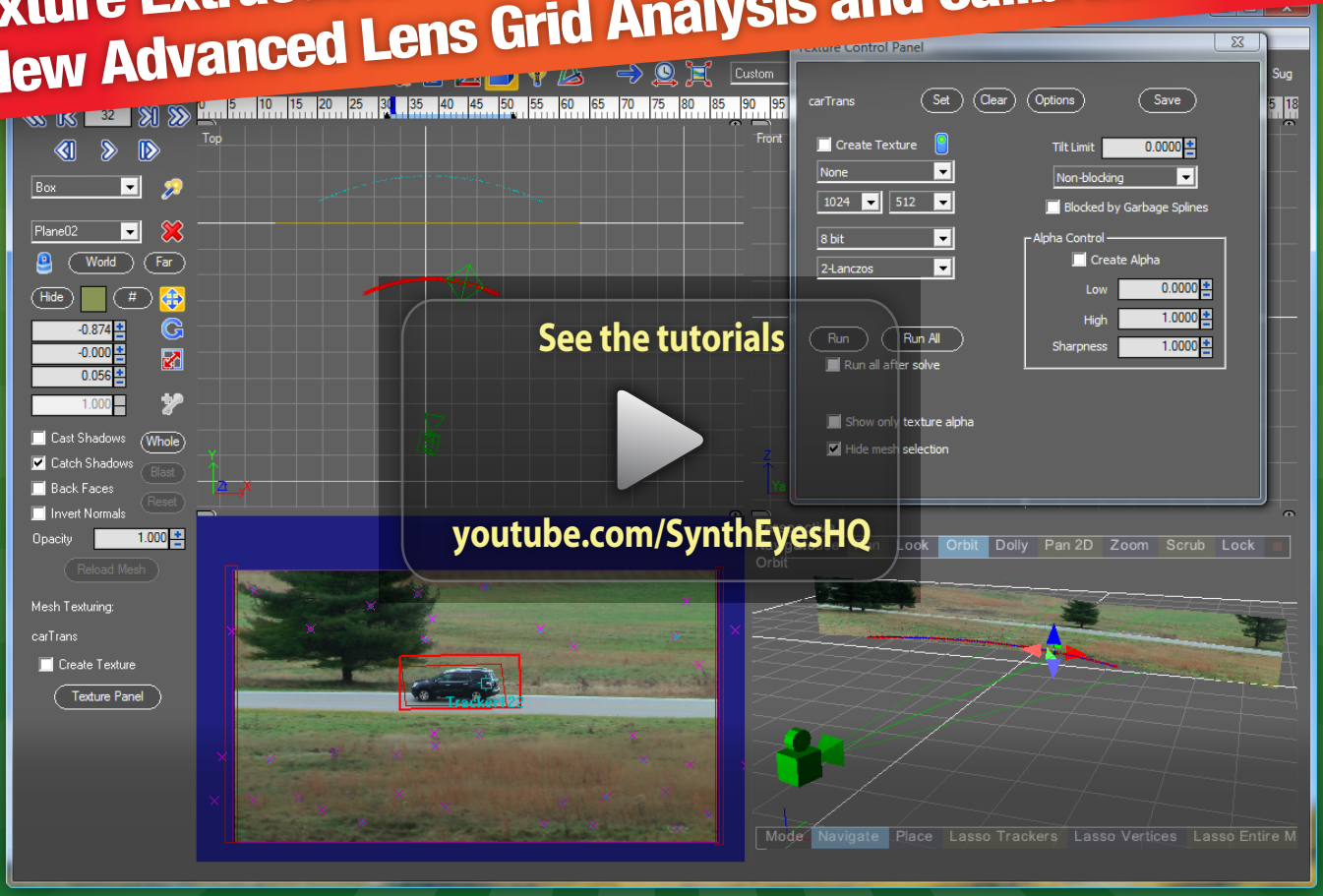


19

SynthEyes

Match-moving, Set Reconstruction, and Stabilization

Texture Extraction: clean plates, set modeling, panoramas
New Advanced Lens Grid Analysis and Calibration Tools



Sophisticated AfterEffects exporter with Pixel Benders

Pro 64-bit version only $599 for Windows and Mac OS X, full-featured entry-level 32-bit version an incredible value at $399

Typical Applications

- Fixing Shaky Shots
- Virtual Set Extensions
- Animated Character Insertion
- Product Placement in Post-Production
- Face & Body Motion Capture
- Talking Animals

What Our Users Say About SynthEyes

@willsummers: @geddy76 I've never used PFHoe but Syntheyes is a really great tracker with all the little professional tools you need to fine tune tracks

@julikt: Many people mourn the old Flame 3D tracker but I can work better with Syntheyes on the side on a laptop. With clients in attendance.

@pete_shand: Getting my matchmove on with Syntheyes, so much easier to use than Autodesks Matchmover.

Andersson Technologies LLC

ssontech.com

Serving artists in over 70 countries since 2003

HOW MUCH DID YOU LEARN LAST WEEK?



PETR BALATKA

PRIOR TRAINING: NONE

TIME IN SCHOOL: TWO MONTHS

TOTAL MODELING TIME: ONE WEEK

DAVE SCHOOL

DIGITAL ANIMATION & VISUAL EFFECTS

WWW.DAVESCHOOL.COM







ZBRUSH QUADRUPEDS

ZBrush is a formidable piece of software that is capable of so much. The possibilities are endless and the only restriction is your imagination. In this series our brilliant artists have been given complete creative freedom to show us how to create the organic forms of their quadrupeds. They will cover everything from concept through to final illustration and will show us how to create some brilliantly imaginative quadrupeds!

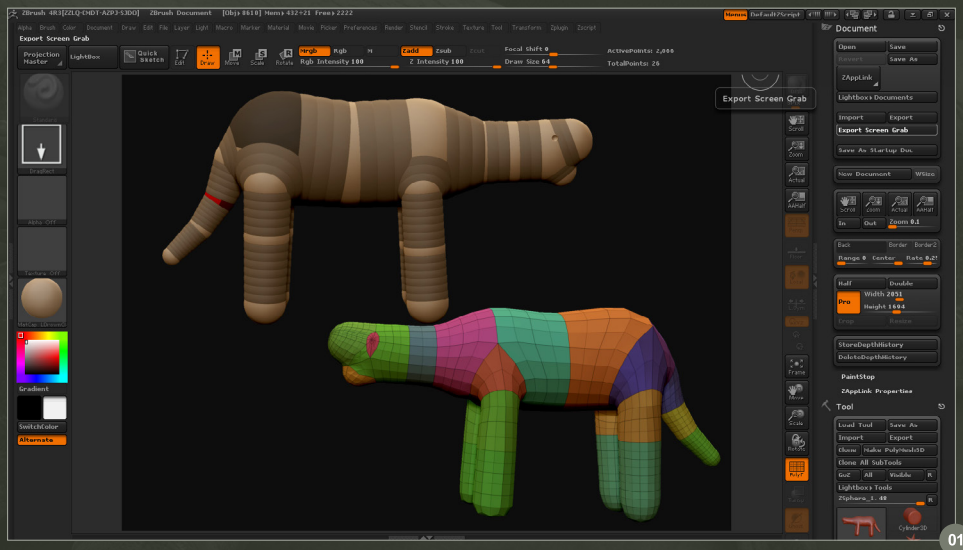
CHAPTER 03

Software used: ZBrush

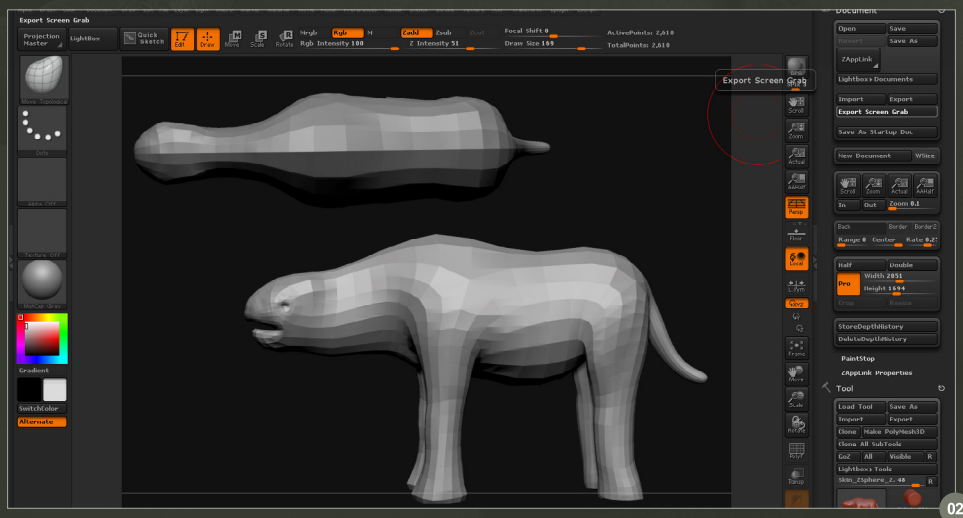
In this tutorial that describes the creation of a quadruped with ZBrush, I will try to present the different stages of the realization of the creature.

The method that I use is quite simple and does not require extensive knowledge of the software. I think that carving organic forms is essentially based on solid artistic knowledge. With rigor, everything is possible, and then you play.

To begin with, I create my base mesh, in this case using ZSpheres. You could also use ZSketch or DynaMesh. As you can see, I create a fairly basic form, which is enough for now, given that the target creature will not contain very complex forms (**Fig.01**).



01



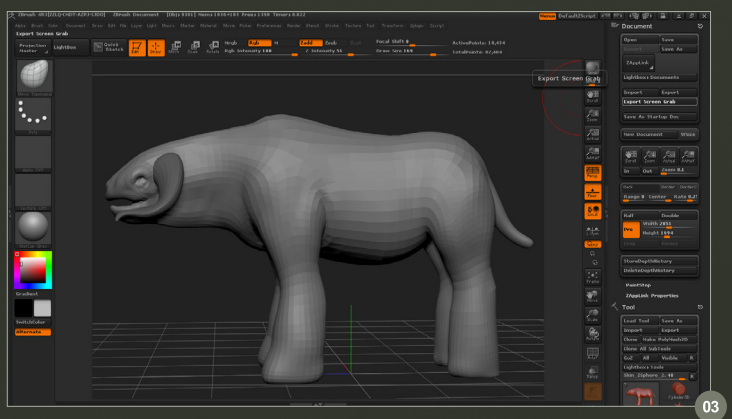
02

On the Adaptive Screen bar, I click on Make Adaptive Screen and I integrate it into my subtool. I toggle the subdivision at level 2 and I delete the first subdivision, which will serve me more. I can then start sketching the shape and proportions of my future creature. This is one of the most important phases because it is the phase which gives the general form. You can do this only using the Move Topological and Transpose tools (Move Scale Rotate) by hiding the desired areas (**Fig.02**).

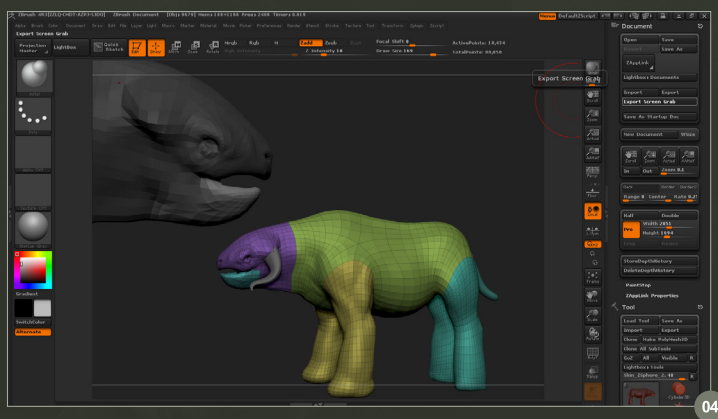
I turn to a higher subdivision and continue the search for my form. I search for both the proportions and silhouette by turning the model in all directions, using the same tools as well as the Inflat tool to inflate parts, and a bit of Smooth from time to time. I also add the horns that I created separately with a ZSphere. Then, I work on the draft of the mouth and eyes (**Fig.03**).

It is more convenient to separate the object into several components. This is so you can select them more easily, work on each element independently and be more comfortable when it comes to working on the details. This can also be useful if you want to hide areas to give the creature a pose. In our case, this will be the jaw (**Fig.04**).

At this stage, the work on the muscle and the face has already started. The most important thing I do here is deform the back legs by adding joints because I don't like their previous

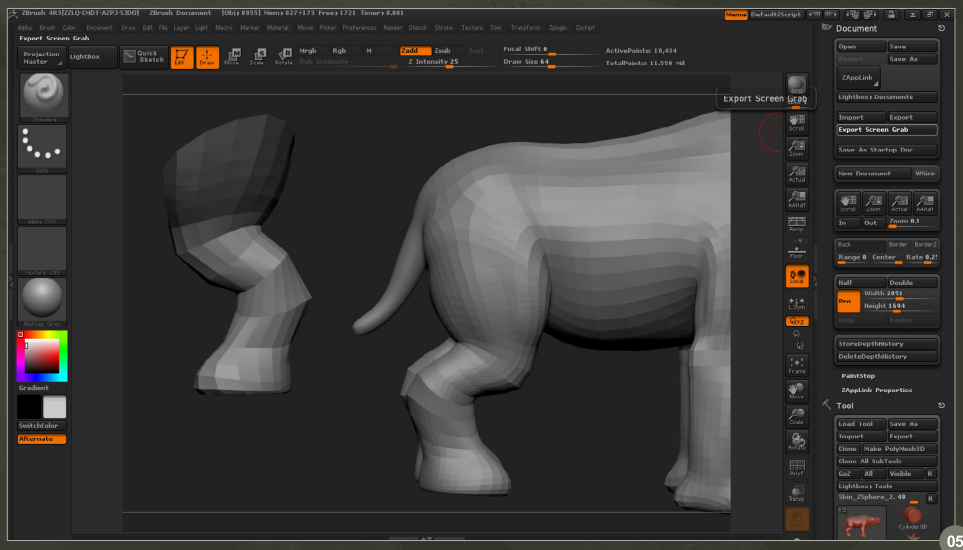


03



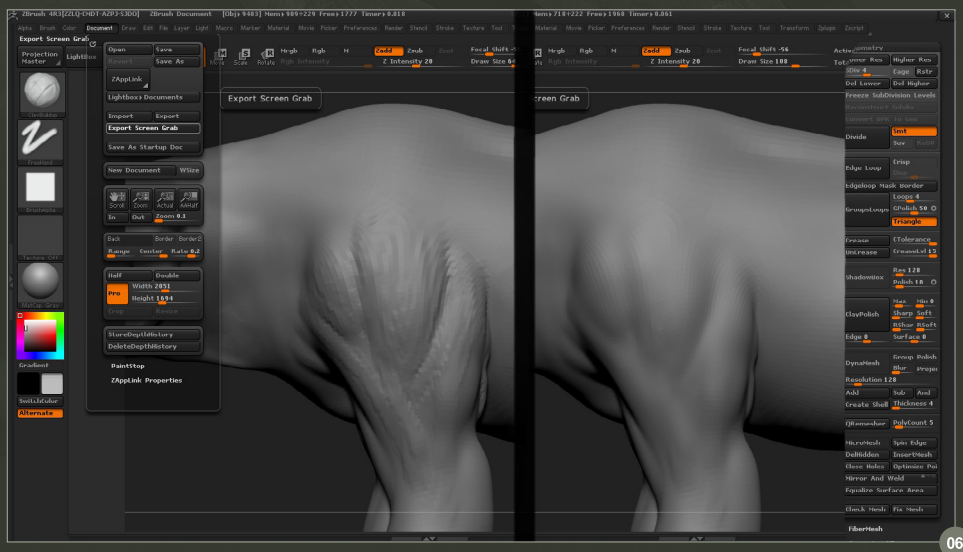
04

form. In this sense, I am back on the low poly model. I have hidden the area at the level of the joints and used the Rotate tool to add shape. Being back on the lower subdivision can be very helpful in such cases. This can be also used to delete unwanted parts with the Smooth tool (**Fig.05**).



05

On the muscles, I turn to a higher level of subdivision, such as subdivision 4, for example, and I draw using the ClayBuildup brush a little, using the pressure of the tablet. Then I fade with the help of the Smooth tool. I generally use it with an intensity of between 25 and 45; it depends on my needs. You will achieve an interesting result by doing just that. I advise you to use images for reference (**Fig.06**).



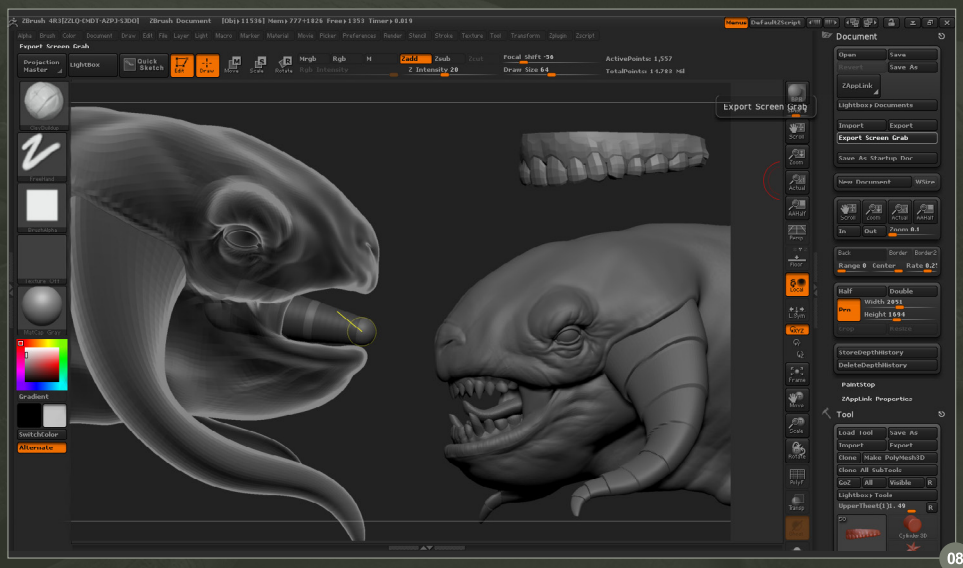
06

While working on the body, from time to time I retouch the head. In **Fig.07**, you can see the phases of evolution. I use the Move brush for the general shape and Dam Standard brush to draw hollow parts. I use it often for subtraction; the first time with a low intensity and with a large enough size. Afterwards, I return to standard brushes, Inflat, Clay Buildup and also the Pinch brush from time to time. For the eyes, I use a sphere. I draw on the eyelids with a mask and I


07

click on Extract in the subtools bar, after setting the desired thickness.

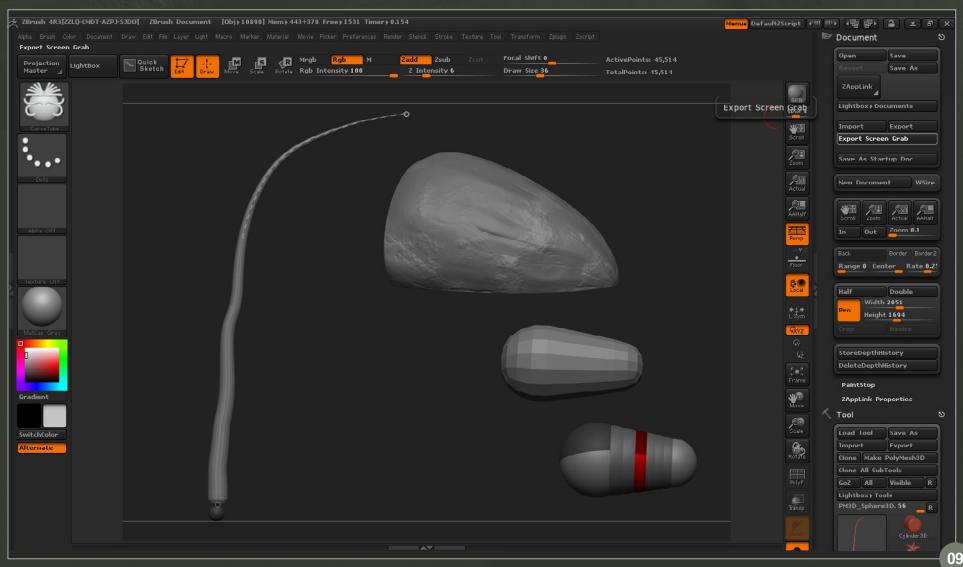
It is time to shape the mouth and add teeth to the creature. I use ZSpheres and a teeth base mesh, which I already had and that I use for all my templates. It is important to have a library of predefined elements to save time, although you should always change them as I've done here (**Fig.08**).



08

I create large nails separately using ZSpheres. I shape the base a little with the Topological Move brush, followed by the Clip Curve brush. I add a few cracks with the Dam Standard brush and the Noise tool by setting the scale and intensity (**Fig.09**).

I create splines separately with the CurveTube tool. In the parameters I choose Lazy Mouse (LazyRadius -35) and I activate the scale in Curve mode. Once the first spine is created, I then mask and rejoin them by pressing Ctrl on the keyboard and by moving the duplicates one by one with the Transpose Move tool.

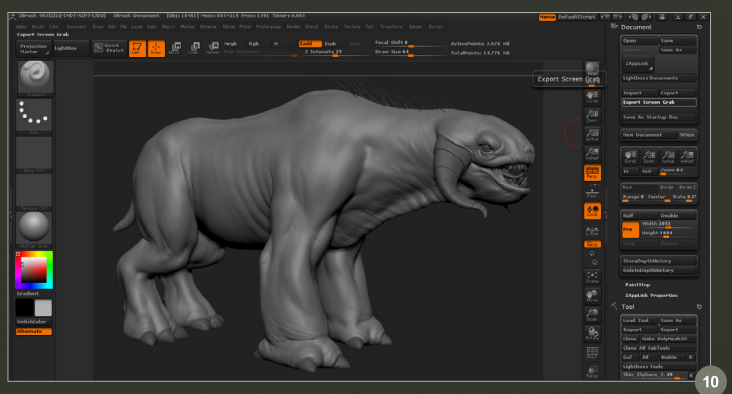


09

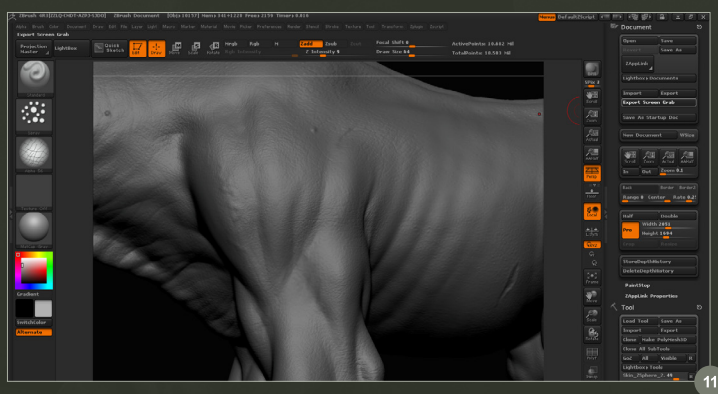
The creature's silhouette and muscles are taking shape. In subtraction mode, I use the Dam Standard brush, varying the scale and intensity, with a Lazy Mouse setting of between 7 and 13. For inflating the muscles at this stage, there is nothing better than the Inflat and Smooth brush tools (**Fig.10**).

The sculpture is finished, so I turn to the skin details. I start with a light uniform pass using the Standard brush in Spray mode, with the 07 alpha that is available by default in ZBrush. I repeat a pass with other alphas at low intensity. In addition to the Spray mode, using the Drag mode with alpha 56 can give you interesting results. Aside from this, I create my own alphas in Photoshop based on animal images. I desaturate them, slightly increase the levels of black and white, and give them a progressive contour. At this point, you can add a few veins, warts, injuries, etc (**Fig.11**).

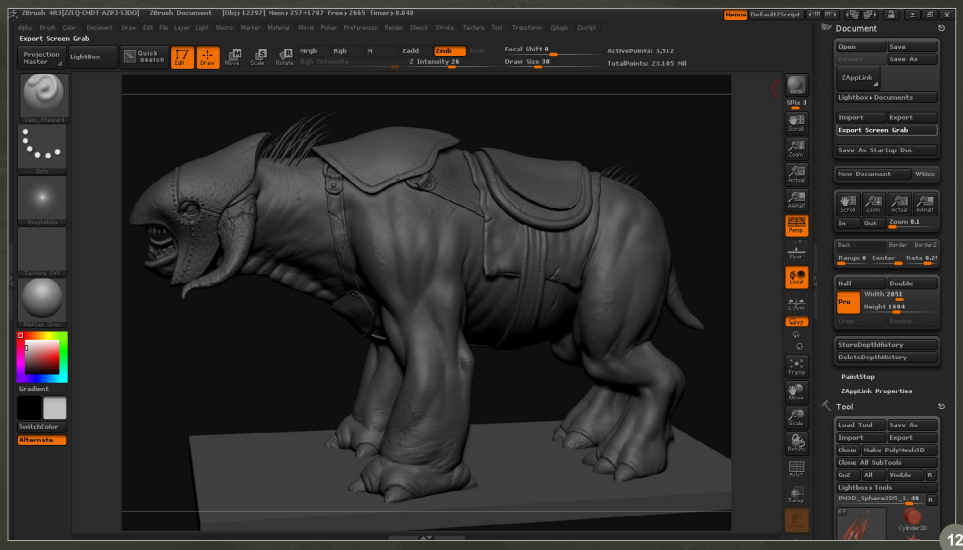
I create a few accessories by decreasing the subdivision and drawing the shape of the base with masks with a good thickness. I rework them with brushes I worked on the creature with. For metallic elements, I add a bit of noise (**Fig.12**).



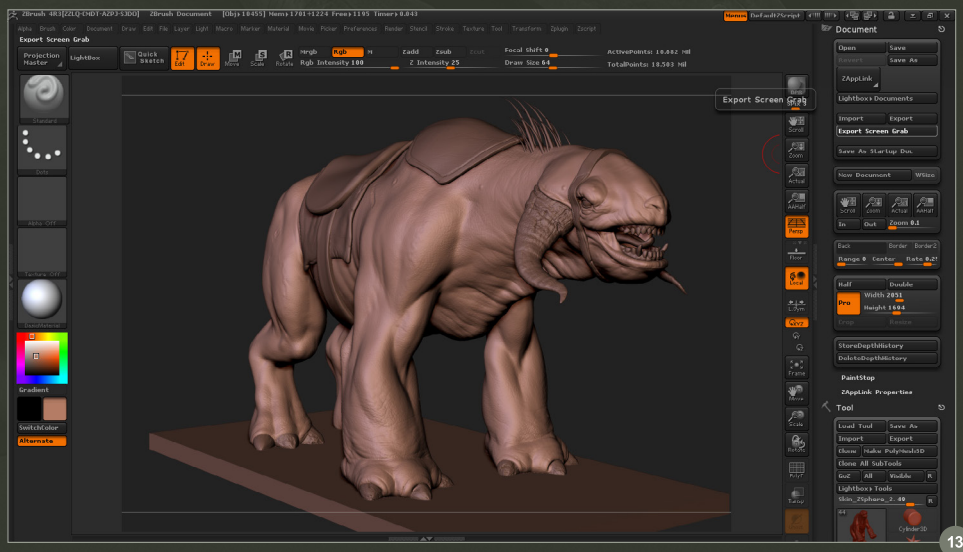
10


11

Next I moved on to polypainting and texturing the model. For metallic elements, I use the SpotLight with a metal texture that I downloaded from the internet. I also turn the MatCap gray. Here, I have opted for a flesh tone color as the base color that I apply on the model. I am in Brush Standard mode, with an RGB intensity of 100 and I set my choice of color to Color Fill Object (**Fig.13**).

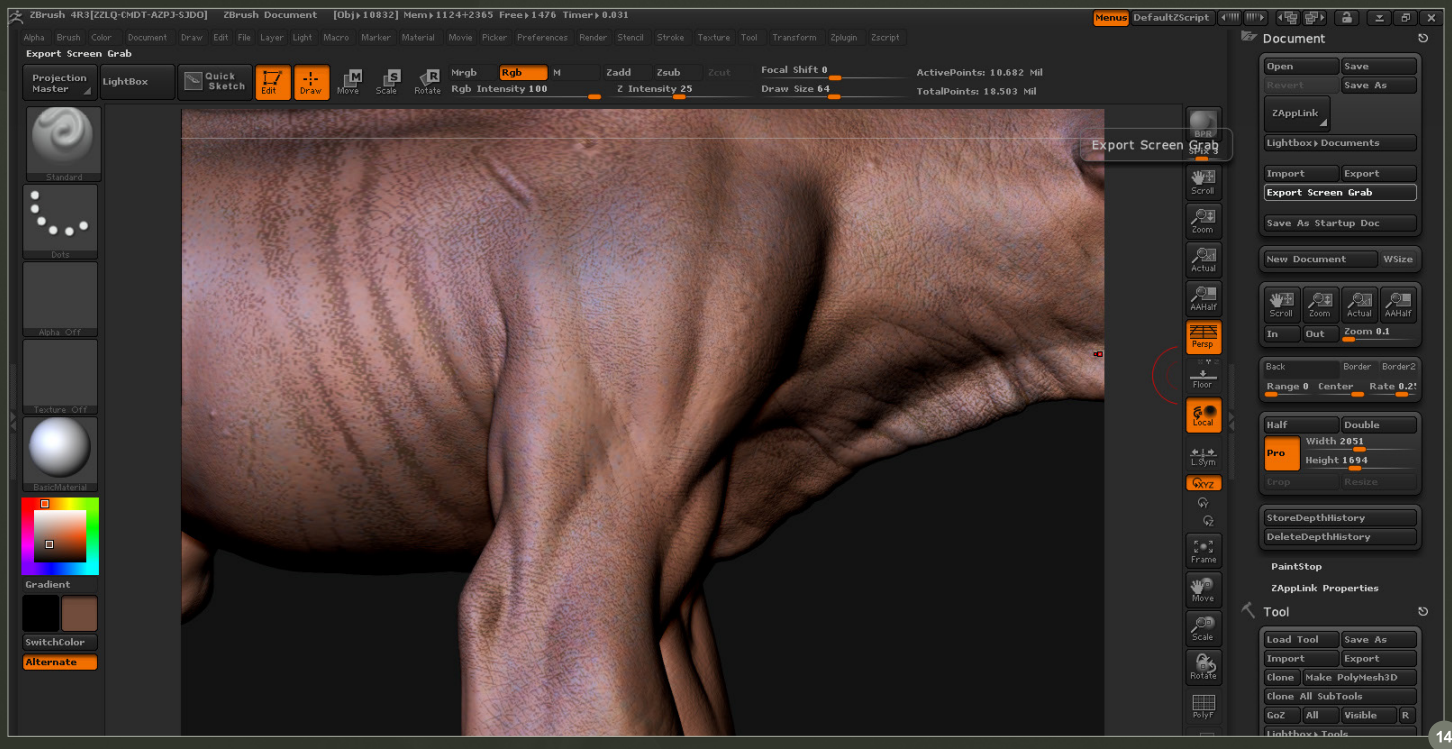

12

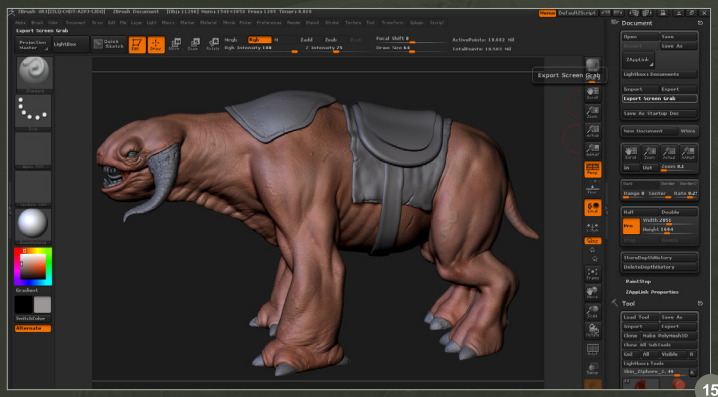
I choose a slightly darker color and with the DragRect, I apply the color with a medium intensity as if I'm creating my own shadows to better highlight the volumes. I choose a complementary color to the base color – a slightly bluish tint that I dirty the model with. It will be almost invisible at the end, but the use of the complementary color still enriches the painting. After I create a cavity mask (MaskByCavity) and I paint on it with a dark color to bring out the details (**Fig.14**).

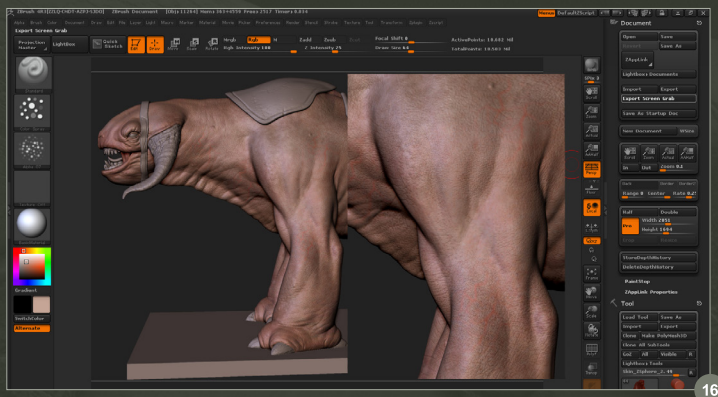

13

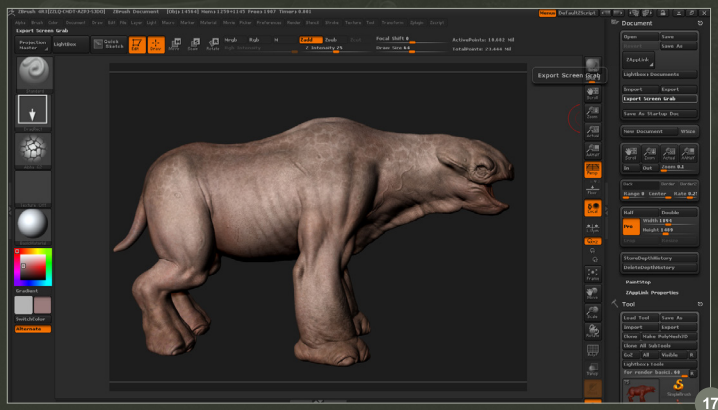
I apply a slight reddish tint on areas such as the joints and cavities, to define them. I also apply a light green on a few veins (**Fig.15**).

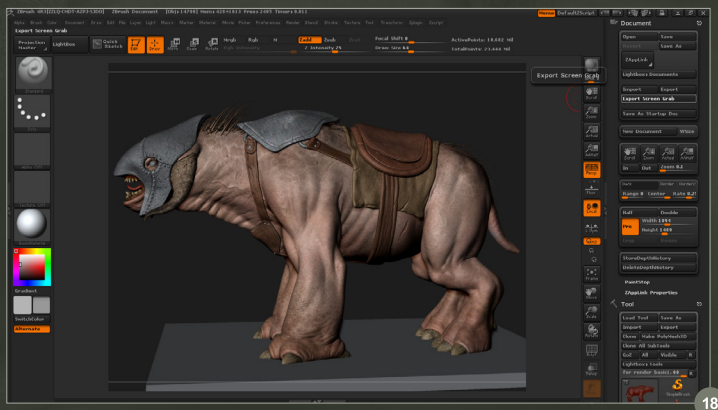
I now use ColorSpray, and alphas 07 and 08, with a flesh tone color more clearly. I apply


14


15


16


17


18

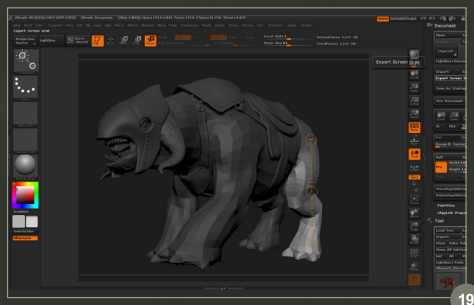
it on the creature while trying to create light gradients. Using a slightly darker color for some parts can give a rather interesting result. You can also add some small veins using DragRect and alpha 22 (**Fig.16**).

I continue with the same process of using ColorSpray and my two alphas until I reach the desired result. Then, using DragRect, I define the area I want to paint, then apply alpha 62, and a little blur (Alpha > Modify > Blur RF) (**Fig.17**).

In **Fig.18** you can see the creature fully textured. I used the same principle for all other areas: I added a base color, then added spots and dirty textures, and finally defined joints and cavities, cleaning things up here and there. This is apart from the metallic part, which I already mentioned.

I give the creature a pose by going to ZPlugin and using the Transpose Master. I have unchecked the splines and the base of my subtool to avoid problems, and I resume working manually with the splines at the end. I then create a texture-less render to assess the final results and to use later in post-production (**Fig.19 – 21**).

I advise you to take your time when it comes to the compositing stage in Photoshop. Test different modes, with different levels of opacity. Be sure to properly adjust your levels of black and white, color correction, saturation, etc. The shader, the light and the rendering parameters I used are available at this link: http://www.zbrushcentral.com/showthread.php?168398-Zafati-sketchbook/page3. They are almost the same as ones that I used for a former creation. You will also find a small Making Of that talks about the fiber mesh. I hope that this will be useful. Good luck to all and good ZBrushing!


19


20


21

ALI ZAFATI
Web: http://zaliti.cgsociety.org/gallery/
Email: alizafati@yahoo.com





ROCKETBOX LIBRARIES

STOCK 3D MODELS AND ANIMATIONS

READY TO USE
HIGHEST QUALITY STANDARD
RIGGED AND ANIMATED
OPTIMIZED FOR REALTIME
FREQUENTLY UPDATED WITH NEW MODELS





SEE THE COMPLETE CHARACTERS HD SERIES

WITH FACIAL ANIMATION RIGS

WWW.ROCKETBOX-LIBRARIES.COM

Rocketbox Libraries does not sell 3d models or animations from different vendors.
All assets are created in house to guarantee the high professional standard we are known for since 2005.

Rocketbox Libraries
www.rocketbox-libraries.com

3DTotal presents the new issue of 2DARTIST magazine: a downloadable monthly magazine for concept art, digital & matte painting for only £2.99 (approx $4.79 - €3.69)

3dtotal.com

Digital Painting Magazine
Issue 083 November 2012

2d artist

Interview
Alien Apple Studios

Articles
Sketchbook of
Johannes Helgeson

The Gallery
Markus Lovadina,
Tiago da Silva,
plus more!

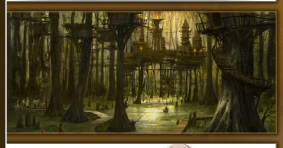
Cover Image by Denis Zilber

Denis Zilber walks us through the processes he used when he painted the imposing figure of the Loan Shark.

LOAN $HARK



Shoulder Mounted Weapons
We continue the brilliant Designing Weapons series as **Brian Sum** is the latest artist to fire out his designs.



The Six Realms
Clocking up more miles, we take our fifth journey to a distant realm. **Richard Tilbury** transports us to the Swamp/Marshland Realm.



Custom Brushes for Characters
Things get a little bit violent this month, as **Bart Tiongson** shows us how to paint a Beaten Up Thug.

visit WWW.2DARTISTMAG.COM to preview the latest issue, subscription offers and to purchase back issues.



ON SALE NOW

MAKING OF SCARECROW

BY ALFONSO ANNARUMMA

In this month's Making Of, talented 3D artist Alfonso Annarumma talks us through the creation of his image *Scarecrow*. Alfonso covers everything from the initial concept and modeling, through to the lighting and rendering of this spooky image.



"The only idea was to make a scarecrow from a spooky movie. It was a Halloween contest, so the image had to be spooky."

SCARECROW

Software used: Blender 2.63a

INTRODUCTION

I'm Alfonso Annarumma and I'm a 3D freelancer. I work with modeling and animation.

I created this image for a Halloween contest that Blender Cookie ran. The theme of the contest was "Scarecrow".

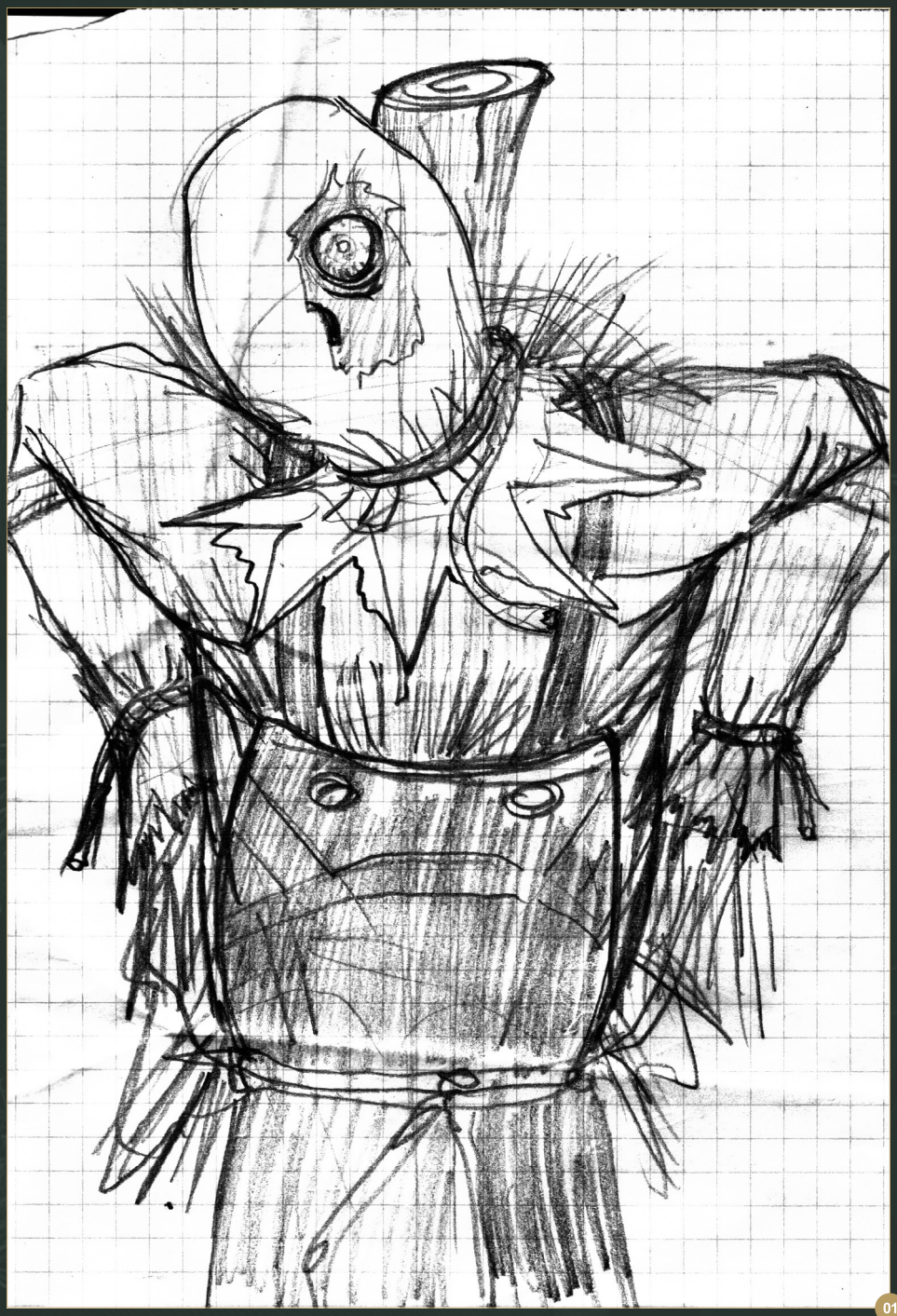
The image was done with Blender 2.63a and rendered with the internal renderer. I used Gimp for a little post-production, but the image compositing was done with Blender Node Editor.

CONCEPT

I have to say that I didn't consider changing the classic scarecrow image much. The only idea was to make a scarecrow from a spooky movie. It was a Halloween contest, so the image had to be spooky.



02



01

The first thing that I did was a Google search for reference images. If you search for "scarecrow" you'll probably find the same results as I did. The image that inspired me for the mood of the scene was a sculpted, hooded head with a big eye that looked out from a hole. So I said to myself, "I want this eye for my image". I don't know if the eye was human, zombie or from a strange monster, but it looked cool and scary. So, I grabbed a pencil and paper and did a fast concept drawing, which you can see in **Fig.01**.

MODELING

With the sketch in my hand I started to model the basic shape of the character. At this stage I didn't scan the sketch, but modeled the approximate proportions by eye (**Fig.02**).

SCULPT

I sculpted on the basic mesh with the Blender Sculpt and MultiRes modifiers. The sculpting was done for the folds and the wrinkles around the eye only. I didn't retopologize the meshes

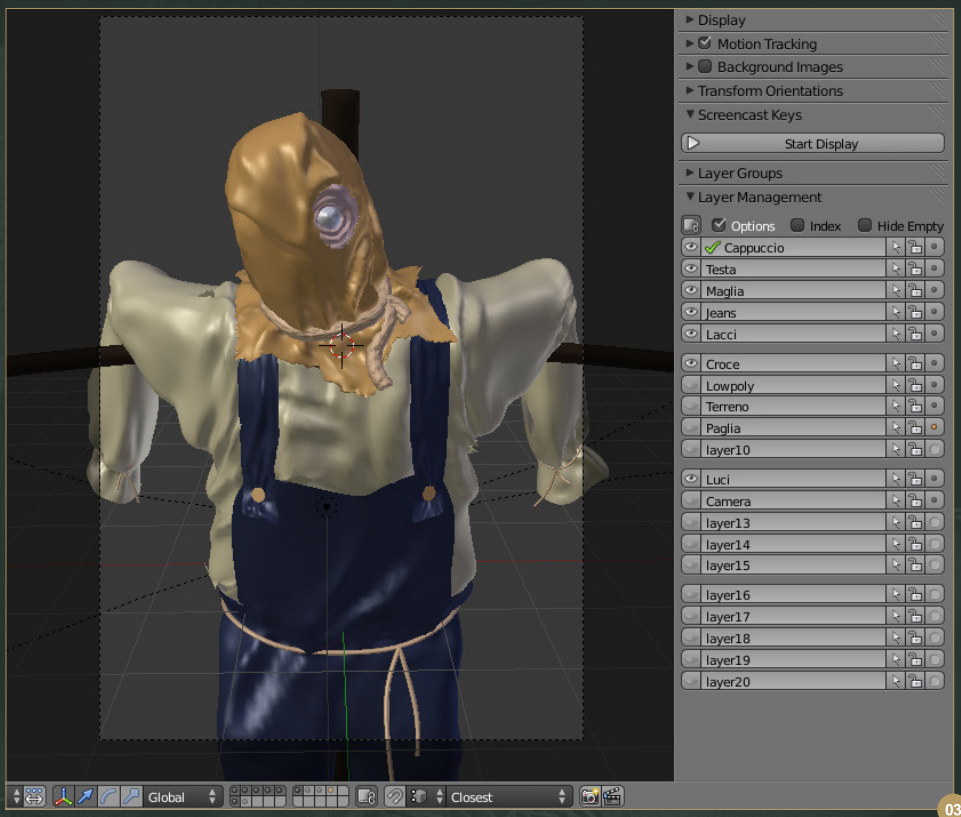
because the model wasn't too heavy and I only had to do a still image and not one for an animation (**Fig.03**).

The rope around the neck is only a cylinder with a Displacement map. You can see the configuration I used in **Fig.04**. The secret is to use a seamless texture, which I created using a tutorial I found on the internet. In the end the only hard thing was the UV maps that had to be the correct size and orientation in order to display the correct aspect of the rope fiber.

The corn plants were modeled in Blender and textured with the Project Paint tool, which is very useful to make textures from different angles.



04



03

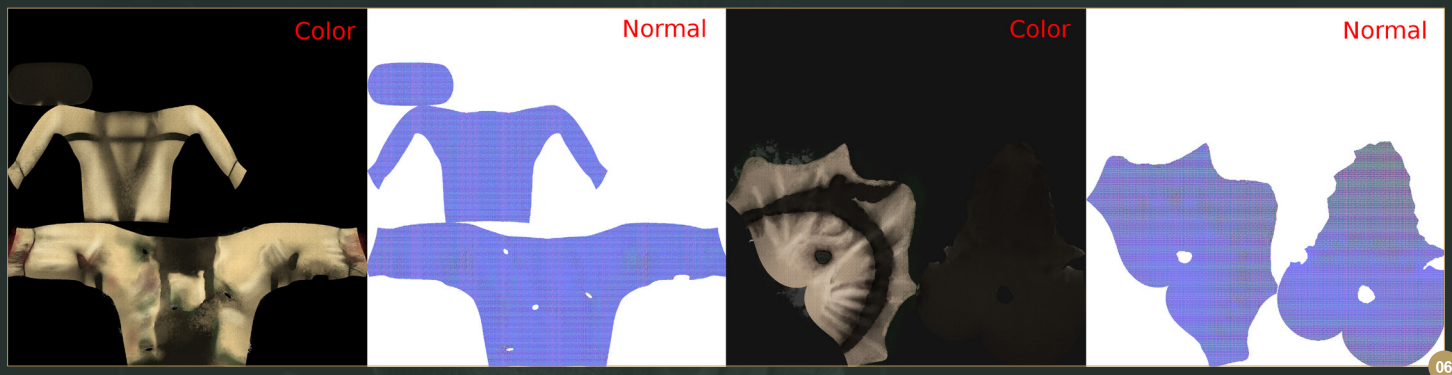
With the Particles System I positioned the plant on a plane with Scale and Rotation randomized. By doing this you achieve a varied appearance for the cornfield around the scarecrow (**Fig.05**).

Materials and Textures

After I unwrapped everything in the scene I created the textures. At first I used seamless textures to recreate the dress pattern. I used



05



06

this texture as a base to bake a Normal map. Together with the bake of the Color map and the Ambient Occlusion, I painted the final Color map in Gimp, adding some dirty layers and shadow/highlight effects to add more depth to the character (**Fig.06**).

For the skin I used the Node material with different layers of SSS (sub surface scattering) and specular:

- Backscatter
- Subdermal
- Epidermal
- Hard spec
- Soft spec

Fur

There is a lot of fur in this work, which you can see on the top and on the rope. To make the fur I used the Particles System with Hair option. You have to play with the Children value to get a good result. The final touch was done to the material by making sure that the alpha was 0 and using a Blend texture to set the alpha on the strand.

Light

The idea for the lighting was to have the scene moonlit from the top left (cold light) and to have a front light (hot light) to create contrast with the first one. The final effect is the result of many experiments and comments I received on the work-in-progress images I posted in various forums.

The moonlight that came from top left is a combination of a spot lamp on top and a spot lamp positioned behind the scarecrow. These two lamps are set to produce a very soft shadow with a cold color (like light blue). You can see the effect of these lights on the shoulder and on the head of the scarecrow.

The key light is a yellow lamp positioned in front of the scarecrow. This light created the mood of the scene. The lamp is set to have a short falloff, to simulate a torch or a camp fire. This light is set with no shadow option.

To give more depth to the image, there is a short Ambient Occlusion set to Multiply.

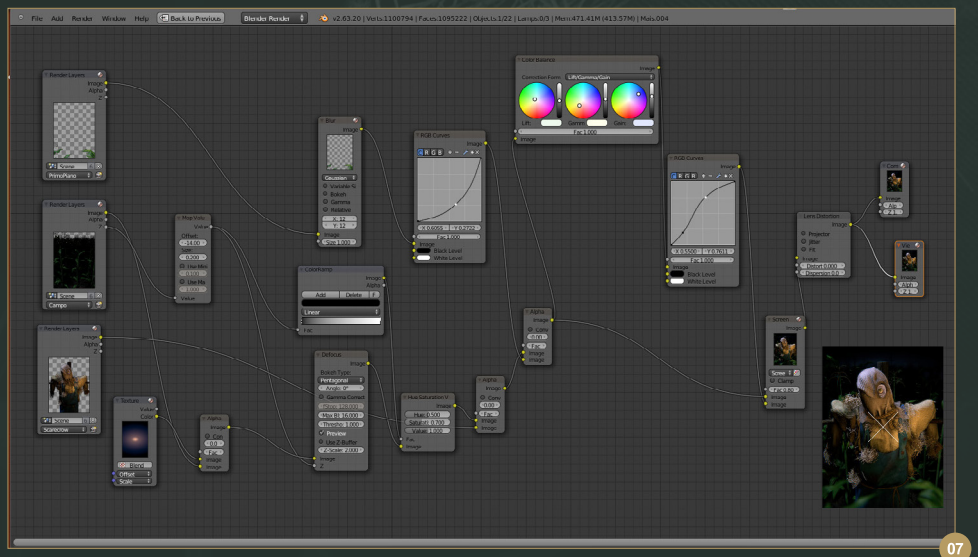
Render and Post-production

The final render was done at the resolution of 1200 x 1600px, on an old Dual Core laptop with 4GB of RAM; the render took about 30 minutes. I love the vertical format because it reminds me of a movie poster.

The post-production was done in Blender with the Node Editor. The first step was to create three render layers: cornfield (campo), scarecrow and foreground (primo piano).

You can see the node link in **Fig.07**:

- With the MapValue Node, I set the Z-Depth pass from the cornfield layer.
- I made the sky with a Blend texture and mixed it with the cornfield layer using the Alpha Over Node.
- The node Defocus set the cornfields Depth of Field with the Z-Depth pass.
- With the Z-Depth pass I set a desaturation of the far element of the cornfield.
- I added a little blur for the foreground layer.
- I mixed the three layers with two Alpha Over Nodes.
- I used a Color Balance Node for the color correction to make green shadows and blue highlights.



07

In the end I adjusted the final image in Gimp with a Sharp mask and I lit the center of the image for a scarier look.

Alfonso Annarumma

Web: http://anfeo-gallery.blogspot.com/

Email: alfonso.annarumma@gmail.com

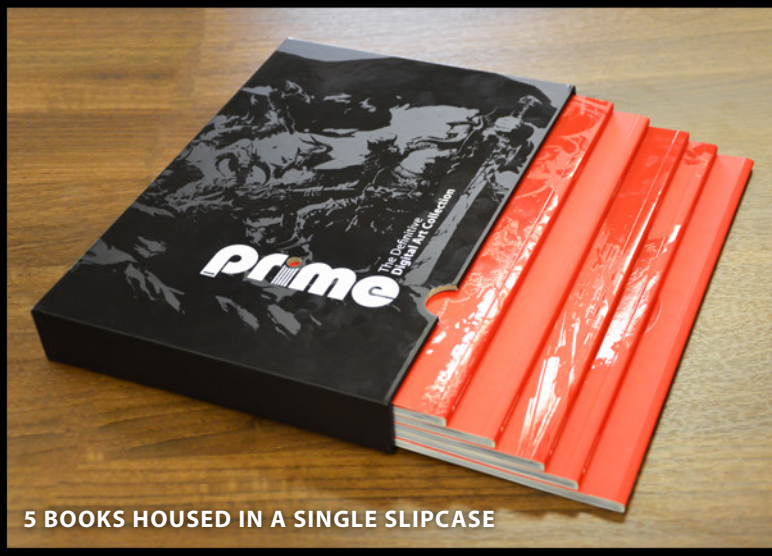


prime

THE DEFINITIVE DIGITAL ART COLLECTION

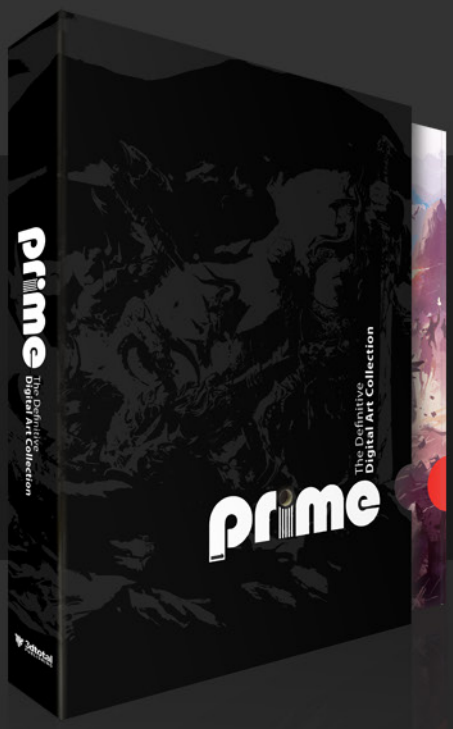
Prime showcases the pinnacle of digital artistic achievement from around the globe in a definitive collection of 21st century CG artwork.





5 BOOKS HOUSED IN A SINGLE SLIPCASE

5 BOOKS | 1 SLIPCASE | OVER 300 ARTISTS | 400 PAGES



Preview the entire **Prime - The Definitive Digital Art Collection** online by clicking here.

This unique set of five books is housed in a single slipcase, with each book devoted to a classic gallery theme – sci-fi, character, cartoon, fantasy or scenes – and featuring stunning, world-class work that comes courtesy of some of the greatest artists in the industry.

Never before has a collection of this magnitude been released. Prime brings together over 400 top-quality pieces in one easily accessible set of books, for your immediate viewing pleasure. Whatever your artistic tastes, the tantalizing mix of fantastical creatures, humorous caricatures, sweeping landscapes and fascinating characters on offer in Prime is guaranteed to capture your imagination and leave you with a timeless source of inspiration that you can return to again and again.

3dtotal.com

Visit www.3dtotal.com/shop to see our full range of products


visit www.3dcreativemag.com
for full information and to
purchase current and
previous issues for
only£2.99 each!
Subscribe
NEW PAYPAL SUBSCRIPTION OFFER
SUBSCRIBE NOW & SAVE UP TO 33%
on this already amazing value publication!
12 ISSUES FOR THE PRICE OF 8
£23.99 save £12.00 (approx - $38.99 save $18.99)
for full information visit:
www.3dcreativemag.com
Image by Filip Novy

3DC next month

Here is what's in next months issue of 3dcreative



Tutorials

Beginners Guide to Modeling Futuristic Vehicles
Chapter 4
3ds Max & Maya

Olivia - Female Character Creation with Andy Hickinbottom
Chapter 3
by Andy Hickinbottom

The Submarine Pen
Environment Creation Using Unreal Games Engine
Chapter 7
by Andrew Finch

ZBrush Quadrapeds
Chapter 4
by Ali Zafati

Interviews

Matthew Burke

Galleries

another **10 of the best**
Images from around the world!

Making of's

Restaurant
by Andrey Goncharov

DAMV7 Promo

Free Chapter
by Filip Novy


20%
Discount Code
Digital Art Masters: V7
Grab your exclusive 20%
discount code at the end of
this tutorial!

3DTotal Publishing
Sample Chapter



LA PAUSE

EXCLUSIVE MAKING OF BY DAVID ARCANUTHURRY

La Pause

Software used: 3ds Max



Introduction

The idea for this image came from a discussion with my good friend Nicolas Reytet (aka Waugh) about the little people of fairyland. I've always loved the imaginary little world populated by goblins, laminaks, gnomes and elves of all kinds. The artist Jean-Baptiste Monge inspires me a lot when it comes to creating an image based within this fantasy theme. I have a lot of books with his work in them and I think he might have been touched by a fairy when he was born!

For this project I started by doing some sketches (**Fig.01**), which is something I like to do because even if the end result is quite different from the original sketches, they provide me with a guide for the construction of the image. After I had done that I went into the forest to take some photographs that I could use as references (**Fig.02 – 04**). The photos helped me when I was thinking about the composition of the final image.

Modeling

There were no special techniques used when I was modeling the scene. When I started the character I went to my library of basic meshes, which I often use as a starting point when I begin modeling. I then simply reworked the model in ZBrush by adjusting the proportions. I usually start using the Move and Scale tools after masking some parts of the mesh with the Lasso tool. As soon as I had the desired result I imported the model back into 3ds Max.

Once I was in 3ds Max I began work on the accessories and clothing. I selected parts of the mesh that interested me and once they were detached I applied the Push modifier. I modeled the fungus using standard primitives (spheres,







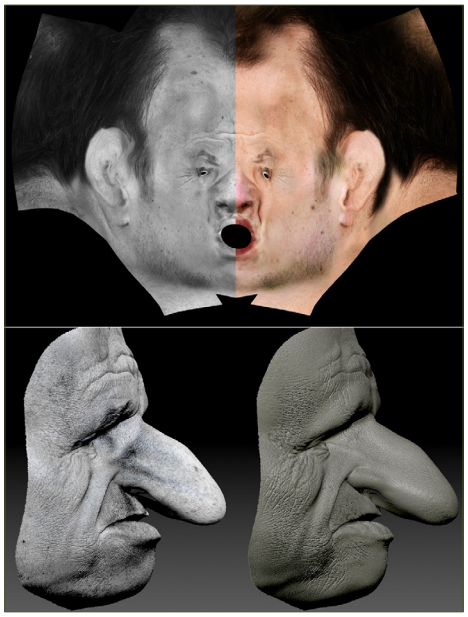
cylinders, etc.,) and then went back into ZBrush where I imported the model with the clothing. I then applied Group Split and continued to work on the volume in a low level of subdivision in each of the subtools (**Fig.05**).

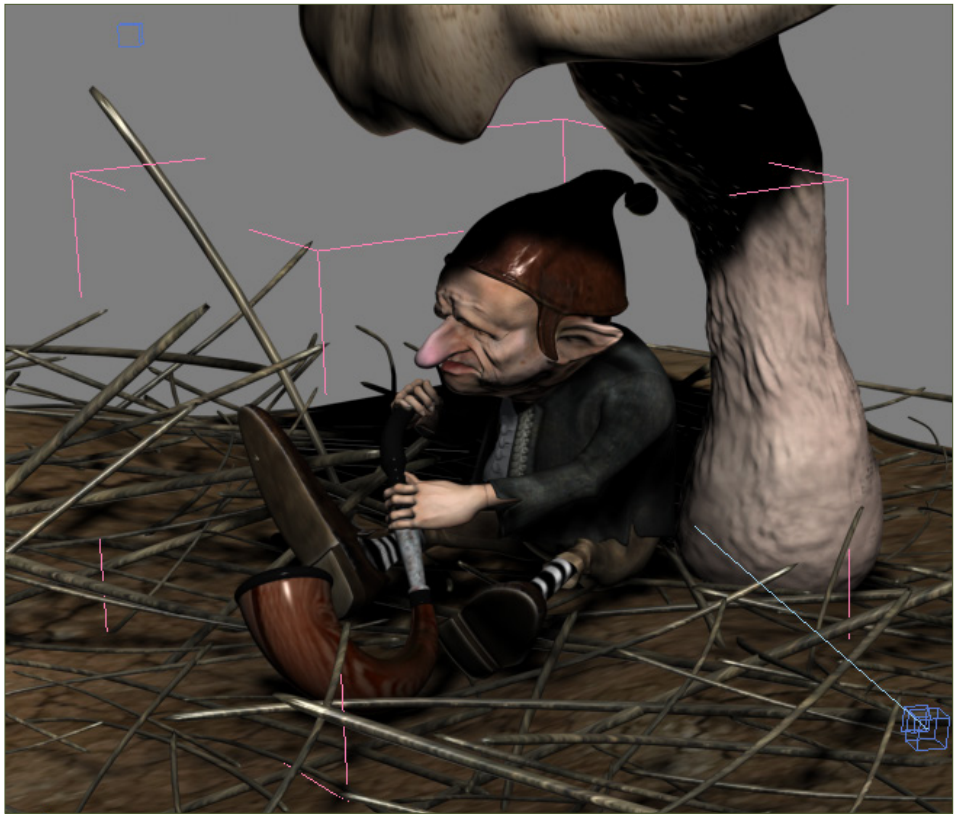


TEXTURING

For the UV mapping I used the UV Master. It's a simple and effective tool that provides good UVs. The next step was to address the textures. I wanted to achieve a realistic look as if I had met this little guy during a walk in the woods, so I used the polypaint feature in ZBrush along with my store of reference images. The textures were also slightly retouched in Photoshop to resolve some defects and add detail. This also allowed me to generate a map to use as a mask in ZBrush for the detailing work. This technique allows you to quickly achieve a good level of detail and consequently refine the image using alphas. I used the same techniques for the other elements in the scene as it was useful in obtaining each and every map (**Fig.06**).

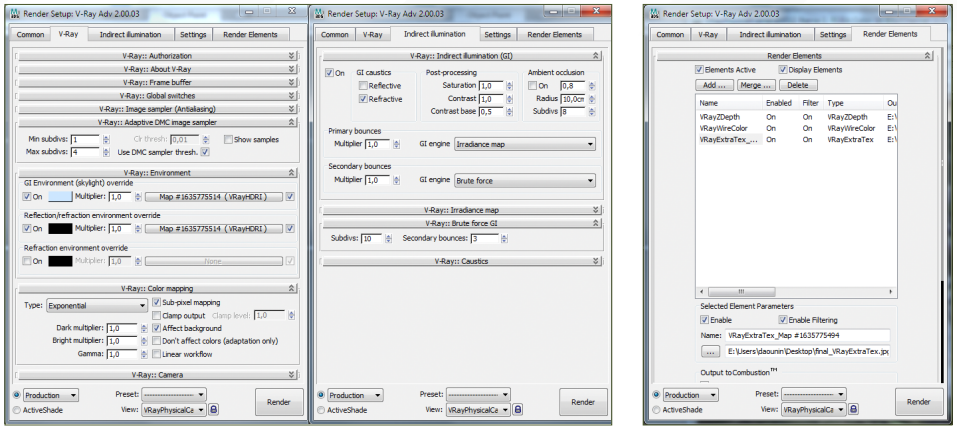
For the character and fungus materials I used V-Ray SSS2 as it creates good results with very few input maps. I also made some color corrections to some of the maps. For the other elements in the scene I used a V-Ray material with different maps in the input (Diffuse, Bump, etc.). I always use Color Correction to contrast or decrease some of the values. For the ground I used a VraydispMod associated with a map made in Photoshop that allows the possibility of adding more detail when rendering.





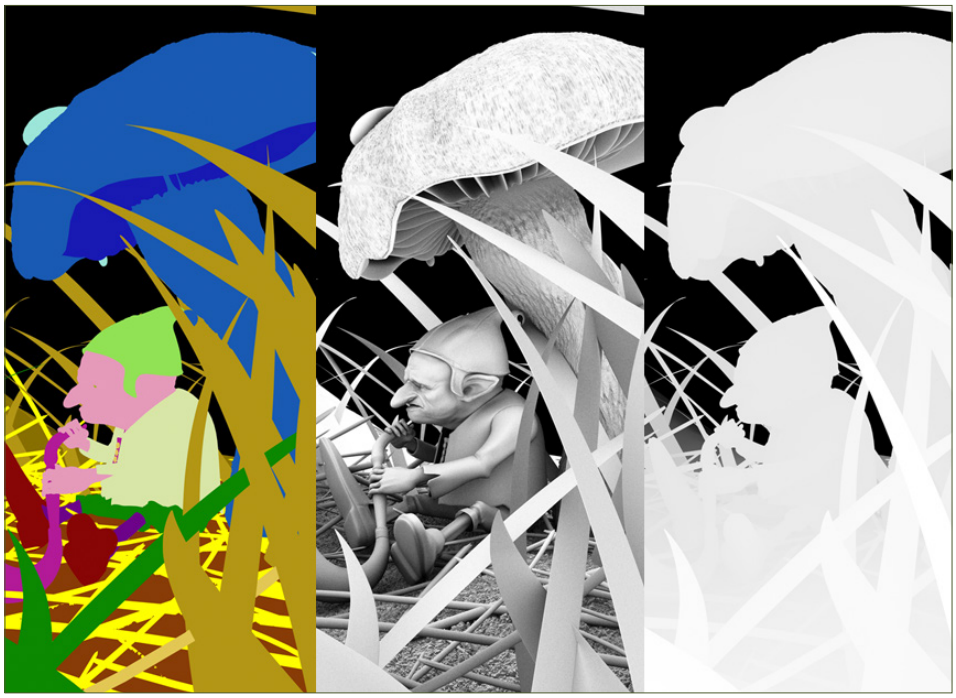
At this stage of the project the scene seemed a little empty. Because of this it was necessary to add some elements to make it look a little more real. I wanted something that resembled the woods near my home and to achieve this I created some grass and pine needles from standard primitives, and then populated the scene using Particle Flow, which is quite simple. I used the shape instance with the needle as a reference and the ground plane as the object position. After I had done that I added some random rotation to create a little chaos (**Fig.07**). To manually adjust the position of the particles I used the script Pflow-Baker.ms.

As I knew I would use an intense depth of field, I only modeled the background elements roughly. I also placed some of these items in the far background to simulate depth.



LIGHTING

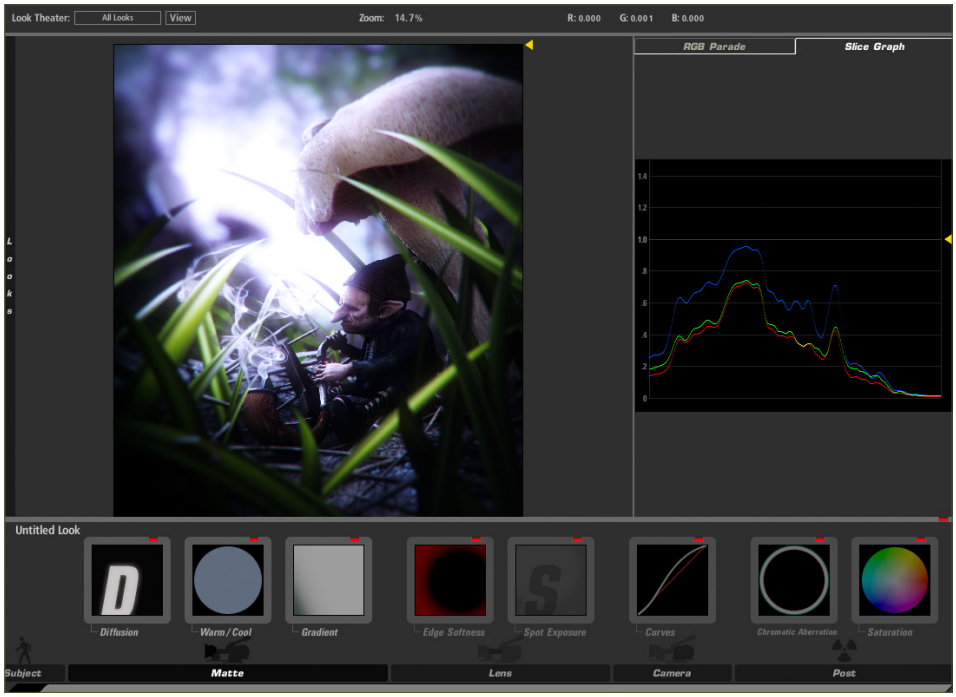
For the lighting I didn't do anything innovative. I wanted to achieve an atmosphere that made it feel as if you were in the undergrowth. To do this I placed a V-Ray light in a position that worked with my Environment map. For the background I used a standard omni light with a low coefficient multiplier and also turned off Projecting Shadow. I put a VrayHDRI map in the GI and reflection/refraction environment slots (**Fig.08**).



The setup in V-Ray was really basic, just like my PC. I do not have powerful hardware so I didn't push the settings too much (**Fig.09**).

COMPOSITING

To me, compositing is one of the most important steps in this type of project. Along with lighting it is the step that adds a new dimension to the image. This is a very important part of the process, which can improve the look and mood, but if is not done carefully you can end up destroying the image.



For most of my projects I use Photoshop to complete the image. After compositing all the different elements (**Fig.10**) I carry out color corrections, Curves adjustments and play with the Levels before applying a Depth of Field filter using the V-Ray Z-Depth map. For the final touch I use the Magic Bullet LooksBuilder (**Fig.11**).

CONCLUSION

Originally I created this image as a test for a project that I wanted to share with my friend Nicolas. It allowed me to test and validate different points of the workflow and was both good training and a lot of fun. One day I hope to meet this guy during a walk in the forest!



DAVID ARCANUTHURRY

Web: http://daounin.cgsociety.org

Email: daounin@gmail.com

DIGITAL ART MASTERS
:VOLUME 7



20% OFF
WHEN YOU ENTER
DISCOUNT CODE:
Damv720



HARDCOVER EDITION ONLY AVAILABLE FROM WWW.3DTOTAL.COM/SHOP

Now in its seventh year, the Digital Art Masters series presents another scintillating collection of work from 50 world-class digital artists.

Over the last seven years, the Digital Art Masters series has brought together over 300 fantastic examples of the world's best 2D and 3D digital art. Digital Art Masters: Volume 7 continues this tradition by ushering in a new elite group of talented artists whose images are sure to inspire and astound in equal measure. This book doesn't just showcase beautiful art; it also offers up details of the creation process behind each image, penned by the artists themselves, presenting a unique opportunity for readers to follow in the footsteps of the masters. Covering topics ranging from fantasy and characters to scenes and cartoons, Digital Art Masters: Volume 7 has something for everyone and is sure to get those creative juices flowing.

Hardback - 21.6cm x 27.9cm | 288 Full Colour Premium Paper Pages | ISBN: 978-0-956881711-2

3dtotal.com
Visit www.3dtotal.com/shop to see our full range of products

3dtotal.com

Is a resource website for the CG community; amongst our growing number of products for CG artists, we produce two monthly downloadable PDF magazines – *2DArtist* and *3DCreative*. We are based in the West Midlands, in the UK, and our intention with our magazines is to make each issue as full of great articles, images, interviews and tutorials as possible. If you would like more information on 3DTotal or our magazines, or if you have a question for one our team, please use the links below.

Contact Information

http://www.3dtotal.com
http://www.3dcreativemag.com
http://www.2dartistmag.com

Editor & Content Manager > Simon Morse
simon@3dtotal.com
Lead Designer > Chris Perrins
chrisp@3dtotal.com
Marketing > Emma Handley
emma@3dtotal.com

Partners

If you have a CG community website and would like to support *3DCreative* and/or *2DArtist* magazine by showing our banners, contact Simon Morse at the email address above.